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Amateur Radio

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INSTITUTE OF
AUSTRALIA

For the Experimenter
and Radio Enthusiast

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955 American	10/-		
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EF50	10/-		

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1K7	7/6	7A8	10/-
1L4	10/-	7C5	10/-
1S5	10/-	7C7	10/-
2A3	10/-	7F7	10/-
2X2	10/-	7G7	10/-
3A4	10/-	7N7	10/-
3Q5	10/-	7W7	10/-
5R4GY	20/-	7Y4	10/-
5U4	12/6	12A6	10/-
6A3	10/-	12AH7	10/-
6A8	10/-	12C8	10/-
6AC7	10/-	12J5	10/-
6AG5	15/-	12SG7	10/-
6BE6	15/-	12SK7	10/-
6C4	12/6	12SQ7	10/-
6C6	7/6	12SR7	10/-
6C8	10/-	807	10/-
6F5	10/-	[illegible]	50/-
6F6	10/-	813	60/-
6F8	10/-	815	50/-
6G6G	10/-	832	50/-
6H6	5/-	866	20/-
6J5GT	10/-	956	10/-
6J6	15/-	1603	10/-
6K6	10/-	1626	10/-
6K7G	7/6	1629	10/-
6L7	10/-	2051	10/-
6N7	10/-	7193	5/-
6N8	15/-	9002	10/-
6R7	10/-	9003	10/-
6SH7	5/-	9004	10/-
6SH7GT	4/-	EF50	7/6
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6SK7	10/-	VR150	15/-
6SL7	15/-	VR65A	2/6
6SN7	10/-		

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Command Receivers, 3 to 6 Mc., and 6 to 9 Mc. less genemotor; air tested £7/10/-

522 Receivers, original cond. with valves, £9

AR301 High Freq. Receiver, uses three 954s, one 955, six 6AC7 I.F. stages at 30 Mc. Easily converted to 144 Mc. Complete £6/10/-.

English Beacon Receiver, two valves, contains Trans., Resistors, Pots, Condensers. Ideal for wrecking. To clear ..... 22/6 each

American Com. Receivers R.A.X., 8 valves, 5 bands: 7-10 Mc., 10-13 Mc., 13-17.5 Mc., 17-22.5 Mc., 22-27 Mc. Two R.F. stages. Valves: 12SK7, 12K8, 12SR7, 12A6. Two I.F. stages at 2.2 Mc. Ideal for double conversion. Calibrated vernier dial, AVC/man. control, ant. trimmer, audio gain, etc. Complete with 28 volt genemotor £25

American Low Freq. and Broadcast Band Receiver R.A.X., 7 valves, 4 bands: 200-300 Kc., 300-500 Kc., 500-900 Kc., 900-1500 Kc. I.F. freq. 160 Kc. Calibrated vernier dial, etc. Ideal Q5'er. Complete with 28 volt genemotor £17/10/-

American Bendix MN26C Radio Compass, 12 valves, 3 bands 150-1500 Kc. I.F. channel 112 Kc., good condition less genemotor, £12.

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Co-ax Cable, any length ..... 2/- yd.

American Control Box BC1157B, contains one Weston 100 microamp. 2" meter (scale 0-30 Ma. 0-300v.), three Oak wafer switches, sundry toggle switches, Pots. In black crackle 12" x 9" x 3¾" case ..... 50/- each

A.W.A. Artificial Aerial Boxes, contain two 155 pF. variable condensers 2000 v.p., two Oak switches and Resistors, also five high voltage fixed condensers. In grey crackle steel case; height 8½", breadth 9¼", depth 16½"; weight 23 lbs. Few only, to clear 45/-

English Carbon Mike Transformers, new, 5/-

WANTED TO BUY—RADIO PARTS, VALVES, TRANSFORMERS, RECEIVERS, TRANSMITTERS, ETC.

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Wireless Institute of Australia (Victorian Division) Rooms' Phone Number is FJ 6997.

WI BROADCASTS

All Amateurs are urged to keep these frequencies clear during, and for a period of 15 minutes after, the official Broadcasts.

VK2WI: Sundays, 1100 hours EST, 7146 Kc. and 2000 hours EST 50 and 144 Mc. No frequency checks available from VK2WI. Intrastate working frequency, 7125 Kc.

VK3WI: Sundays, 1130 hours EST, simultaneously on 3573 and 7146 Kc., 51.016 and 146.25 Mc. Intrastate working frequency 7135 Kc. Individual frequency checks of Amateur Stations given when VK3WI is on the air.

VK4WI: Sundays, 0900 hours EST, simultaneously on 3560 and 14342 Kc. 3560 Kc. channel is used from 0915 hours to 1015 hours each Sunday for the W.I.A. Country hook-up. No frequency checks available.

VK5WI: Sundays, 1000 hours SAST, on 7146 Kc. Frequency checks are given by VK5MD and VK5WI by arrangements only on the 7 and 14 Mc. bands.

VK6WI: Sundays, 0930 hours WAST, on 7146 Kc. No frequency checks available.

VK7WI: Sundays, at 1000 hours EST, on 7146 Kc. and 146.5 Mc. No frequency checks are available.

AMATEUR RADIO

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Melbourne, C.1.

EDITORIAL

★

THE SACRED FLAME

Each passing year brings its sorrows as the Great Reaper takes His harvest from amongst our friends, many also victims of World War II., leaving us only "silent keys" and cherished memories. Their names are not engraved on the Remembrance Day Trophy, but we will have them in our hearts when we call "CQ R.D. Contest" this August.

Throughout the ages great philosophers have symbolised the flame as a purifier, a purger of dross and uncleanliness, the "Flame of Life," "Light of the World," to the Greeks, the "Torch of Life," a gift from the Gods on Mt. Olympia to mortal man; to "Toc-H" Brethren, a light to keep alive in the hearts of men, to strive more nobly in service to the living.

By participating in the R.D. Contest we make our annual pilgrimage to the Shrine of Remembrance wherein the tiny flame, a symbol of eternal life, burns with a pure unending light; for our lives do not end with death; they stream on, not merely in our offspring but more importantly in the influence they have had on the rest of life, our families, friends, acquaintances and casual contacts.

To we who remember, then, let us strive to enter this year's Contest with the "Flame of Remembrance" in our hearts, to contest with each other as in Grecian Olympia; but let it be a contest to perpetuate the ideals of give and take, unselfishness and love for which they gave their lives in sacrifice.

"By your acts of grace,
So shall they live."

PRESIDENT S.A. DIVISION.

THE CONTENTS

THE COMPLETE AMATEUR

PART TWO

BY TOM ATHEY,* A.I.R.E. (Aust.)

In the nine sections of Part 1, the author dealt with the building of a band-switched transmitter, using normal theory. There was nothing included in its make-up that was out of the ordinary run of transmitters used by the fraternity. All that the writer tried to convey to the newcomer is that when he starts building his rig, to try and make it as neat as possible. The circuitry was made as simple as possible so that very little skill would be needed—just to be able to read a schematic and use everyday tools.

Since "Amateur Radio" has commenced to publish these articles, the writer has received letters from VK2, VK5 and VK6 asking him to continue the series and include (1) a good receiver, (2) a frequency meter, (3) notes on monitoring, and general tuning up.

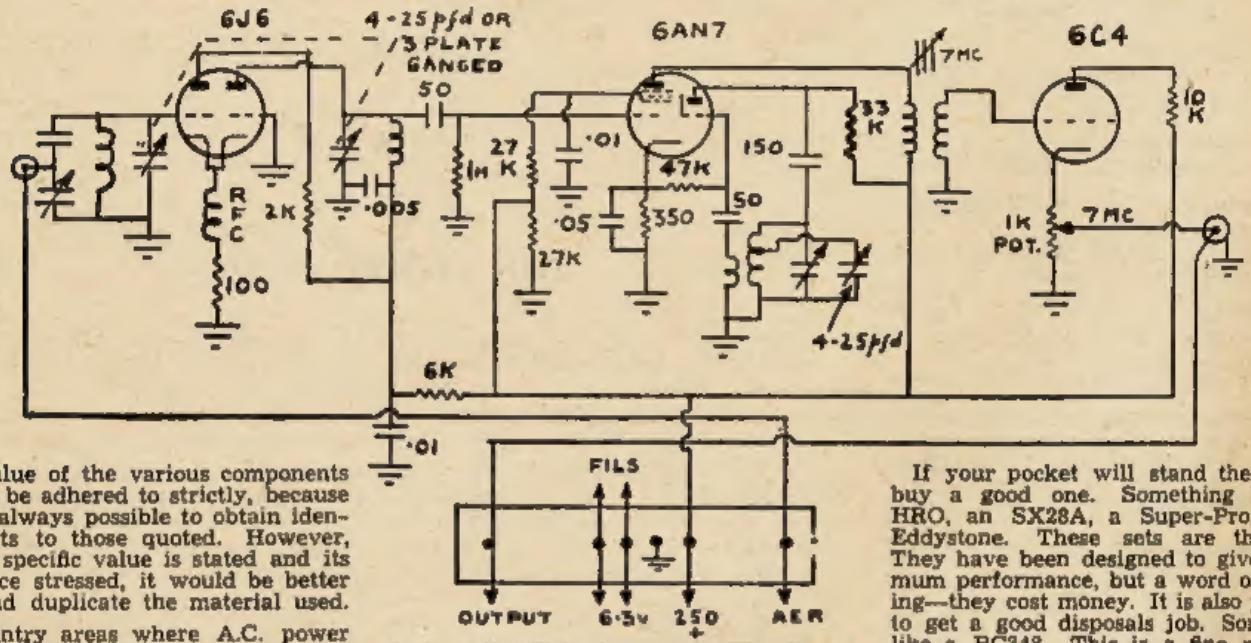
So here is the answer to those enquiries. There will be five sections to Part 2, thus making 14 sections in all and giving, it is hoped, the newcomer to Amateur Radio a complete set-up of an Amateur Radio Station with details of how to start to build it. As stated before, it will be known as "The Complete Amateur." The five sections will comprise:—

- Receiver using converters for each band.
- Frequency meter with crystal calibrator.
- Modulation monitor using a simple 'scope.
- Audio oscillator, Wein bridge type, 50-3000 cycles.
- Sundry tables on beam construction.

SECTION ONE

The Receiver

It is a well known fact that it is no use calling over and over your call sign if you can't hear a reply. Very often it is conditions that cause you not to get a reply, but not always. Very often it is your receiver that is responsible; it just has not got what it takes to get results. Therefore it is essential that you get a good receiver.



The value of the various components need not be adhered to strictly, because it is not always possible to obtain identical parts to those quoted. However, where a specific value is stated and its importance stressed, it would be better to try and duplicate the material used.

In country areas where A.C. power is not readily available, the use of genemotors can be substituted. Also valves can be replaced by a similar type, but drawing less current. For instance, use 6AM5s for the 6AG7s, 6V6s for 6L6s in the modulator, and use only one 807 in the final. This way your drain can be kept to a minimum. Yet you can obtain an input to the plate of the final of 50 watts quite easily.

If your pocket will stand the strain, buy a good one. Something like an HRO, an SX28A, a Super-Pro, or an Eddystone. These sets are the tops. They have been designed to give maximum performance, but a word of warning—they cost money. It is also possible to get a good disposals job. Something like a BC348. This is a fine receiver, but can be improved if you convert it to double conversion (see the 13th edition of the "Radio Handbook" for details).

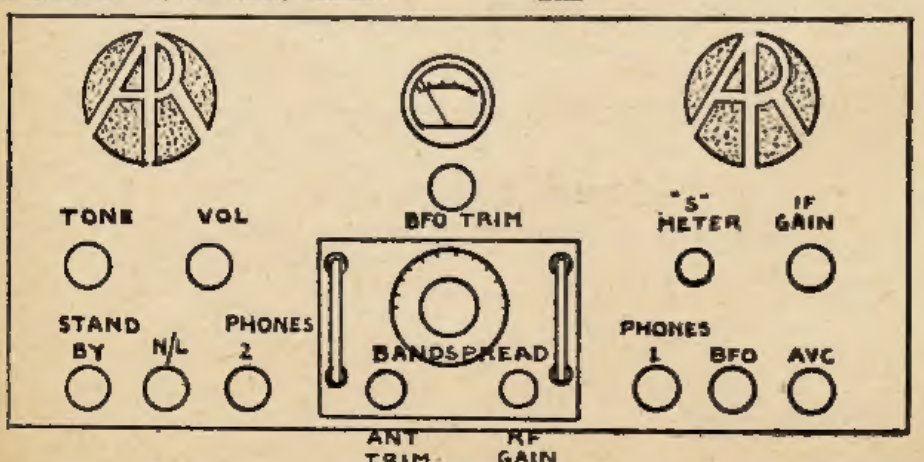
Still, the writer does not think that all Amateur requirements are fully handled by these commercial jobs. Either they do not cover all bands or they do not give enough bandspread over the Amateur bands. So it is with this thought in view that the author decided to try and incorporate into this receiver everything that a Ham requires:

1. Ease of tuning.
2. 180 degrees of bandspread on every band.
3. Double conversion (really triple).
4. AVC, BFO, noise limiter, S meter, two phone jacks, speaker output.
5. An "S9-er" input and a "Q5-er" output included.

The set is actually made up in two units, viz.: A converter (one for each band) and a sensitive, selective i.f. channel.

First we will discuss the converters.

As you can see, this converter comprises a three-valve set-up. Converters can be from one valve upwards, but this set-up has been selected as the best for general coverage. It consists of a cathode-coupled grounded grid r.f. amplifier, followed by a conventional



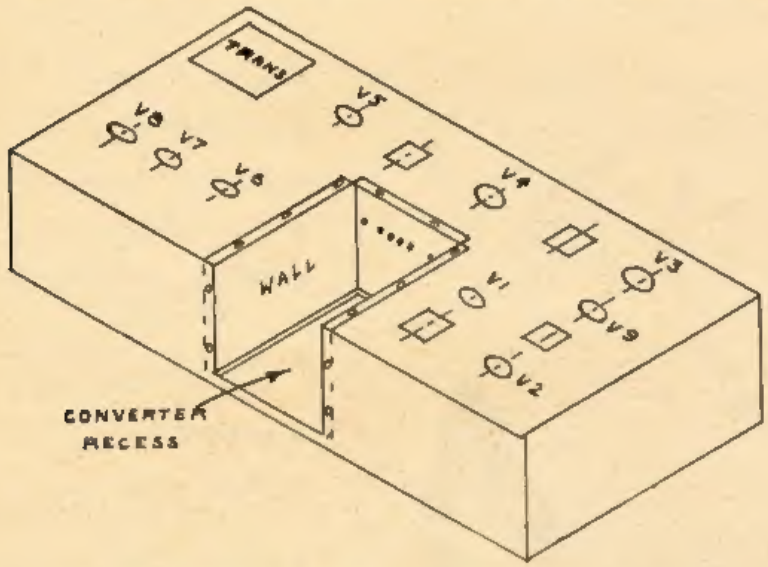
* Ex-Instructor Q'land Division W.I.A. Classes; 41 Mountford St., New Farm, Brisbane.

conversion stage, converting the r.f. to approximately 7 Mc. This is then fed to the output terminal by a cathode follower. This method was chosen to allow a low-impedance output to the next unit. An aerial matching device is included to compensate for aerial differences.

DETAILED DESCRIPTION OF CONVERTER

The converter is built up on a chassis measuring approximately 4½" wide by 6" deep (front to back) and 3" high. Five terminal pins protrude from the rear of the chassis and engage five sockets mounted on the i.f. channel chassis (see sketch of i.f. chassis). These pins are for picking up the h.t. and l.t. supply. The fifth pin is for the aerial input.

As an afterthought, it may be just as well to make the pins number six, as



a positive earth between the converter and the i.f. chassis is a **must.**

The panel is made to overlap the chassis on both sides by half an inch and the height will be approximately 6". In making the chassis, bend ½" in at the bottom edge to allow for runners for the converter to slide on. On checking the pins over, you will find that one pin is over. This one is for the converter output. (See pins marked on schematic diagram of converter.)

Taking the circuit in detail, commencing at the aerial terminal or input. The aerial is fed at the junction of two condensers, one fixed and one variable. One end of this condenser network is earthed (the variable) and the other end goes to the r.f. coil. This coil can be either of the slugged type, or you can use the type made for a five-band coil kit. This coil is trimmed with a small capacitance so that you can peak up the output.

The r.f. coil in turn goes to the grid of the 6J6 valve. The output of this valve is cathode coupled to the next stage by a common cathode (common to both triodes). In the second portion of the valve (triode No. 2), output is taken from the plate circuit using a similar coil as in the grid circuit and trimming it the same way. The grid is earthed, thus successfully acting as a shield between the plate and input circuit and so avoiding the necessity to neutralise this stage.

This input circuit has well known properties of being able to reduce input noise to a minimum at the same time giving r.f. gain. Hence my term an "S9-er" input. Values shown may be varied, but in the main should be adhered to if possible.

The output from the r.f. amplifier is fed to a conventional 6AN7 converter tube. This tube was selected because of its ability to readily oscillate up to 100 Mc. (claimed by the manufacturer) and as these converters may be built to use the bands up to 144 Mc., it may be just as well to standardise as to type of valve to use. Then if one passes out, you can always grab one from another converter, if you have not any spares.

The oscillator bandset condenser is screwdriver set to the band edge with the bandspread condenser fully in. Thus by opening the bandspread condenser out you can find out how much spread is needed and adjust the tap accordingly.

These converters use oscillator variation for band coverage and prove quite stable and satisfactory. The oscillator circuit used is one recommended by the manufacturer, but if you prefer another type of circuit, use it by all means.

The output of the converter valve is fed into an i.f. transformer having a frequency of approximately 7 Mc. There has been no special reason that 7 Mc. is the best frequency to use. You could use 10.7 or 3 Mc. if you wish, but whatever you do use, make sure that the i.f. channel will accept it.

The i.f. signal is fed to the 6C4 triode grid and the output is taken from the cathode of that valve.

The rest of the wiring is very straight forward and should present no difficulty to the builder. **Note:** Avoid long grid leads. Make good clean soldered joints, and see that the chassis is a good fit in the i.f. channel recess and that pins line-up exactly with the sockets.

Converters of this type can be made up as you require them. If you are a one-band man, you will of course only need one converter. But the time will come when you will want to try other bands, so instead of scrapping the existing job, all you have to do is to build up another converter, even whilst you are using the old one. The ultimate is, of course, one for each band—80, 40, 20, 15, 10, 6 and 2 metres—seven in all. The one i.f. channel will work them all and give you good results. Take pains in your work. A crackle finished panel looks good and very professional. If you have any difficulty in getting the panel crackled, try your local typewriter man and get him to do the job. The writer did and it did not cost very much. So much for the converter.

"Sure Fire" Crystal Oscillator-Multiplier

BY J. V. HUTCHISON,* VK2JH

THE purpose of this article is to re-introduce an apparently little used "sure fire" crystal oscillator-multiplier circuit. After experimenting to some extent with this circuit, the writer came to the conclusion that it left the well known "third overtone regenerative" type of oscillator in the shade.

ADVANTAGES

Its main advantages over the latter are:—

- Any type of crystal capable of oscillating at all, will definitely "start" and keep going.
- For the same tubes and plate voltages, more output will be realised.
- Much more reliable for use in mobile equipment.
- The first multiplier section is capable of delivering more output on all harmonics, even up to the fifth harmonic of the crystal.

A capacitor, marked C3 in Fig. 1, couples the third harmonic voltage to the other triode section where it is tripled by a resonant plate circuit tuned to the ninth harmonic of the crystal. The latter is then coupled, via an r.f. transformer, to the cathode of a receiver mixer stage (i.e. cathode injection) which is preceded by a broad band r.f. stage resonated to the middle of the 50 Mc. band.

The 12 Mc. transformer from the mixer plate to the co-axial line is one of the four slug-tuned coils which were originally the crystal oscillator plate inductors used in the 522 transceiver. Two turns of insulated hook-up wire are wound over the cold end of the inductor and connected to the output co-ax socket.

The communications receiver, in this case, tunes from 10 to 14 Mc. in order to cover the 50-54 Mc. range.

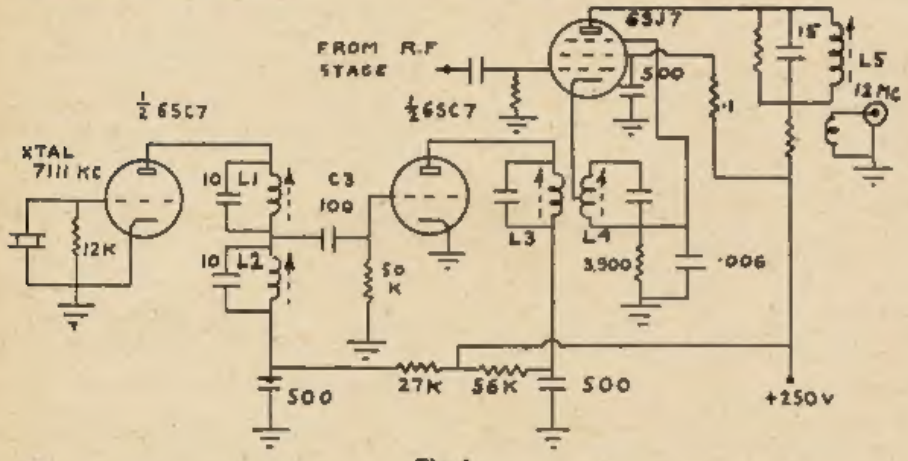


Fig. 1.

V.H.F. CRYSTAL CONTROLLED CONVERTERS

In an original version of the circuit, a 6SC7 dual triode served both as an oscillator, controlled by a 7,111 Kc. crystal and as a frequency multiplier as shown in Fig. 1.

The plate load of the oscillator section is two parallel resonant circuits in series, one tuned to the frequency of the crystal and the other to its third harmonic.

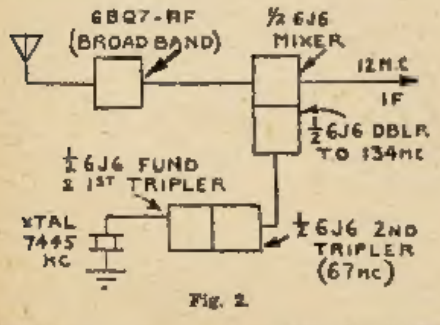


Fig. 2.

The above version could well be applied as a basis for the design of a crystal controlled converter for the 144 Mc. band.

A suggested line-up of tubes is given in Fig. 2. Other arrangements, with regard to tubes and receiver i.f. frequencies will suggest themselves to the reader.

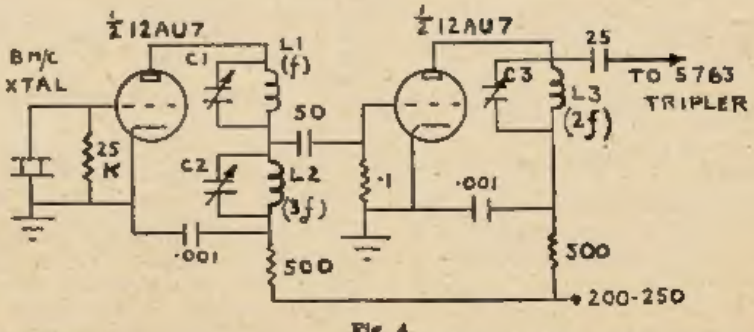


Fig. 4.

C1—50 pF. variable.
C2—25 pF. variable.
C3—25 pF. variable.
L1—32 turns No. 22 enamel, close wound on ½ inch former.
L2—12 turns No. 20 tinned copper, ½ inch diameter spaced to ⅝ inch.
L3—9 turns No. 20 tinned copper, ½ inch diameter, spaced to 1 inch.

However, our immediate concern is with regard to the possible application of the oscillator-multiplier circuit to transmitters, v.h.f. in particular.

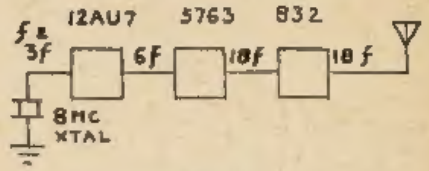


Fig. 3.

V.H.F. TRANSMITTERS

There appears to be a rather wide choice of tubes for this application, although some were found to deliver more output than others.

Two of the best types were found to be the 12AT7 and 12AU7. An RL16 gave excellent results as oscillator and 1st tripler also, but even the older types such as the 6N7 proved to be quite satisfactory.

A typical example of tube line-up for that 144 Mc. mobile rig would be as shown in Fig. 3.

Fig. 4 shows the correct circuit for the 12AU7 used as a crystal multiplier. If type 12AT7 is preferred, the inductance values should be increased slightly, in order to allow for the latter tube's different interelectrode characteristics.

AMATEUR BANDS AVAILABLE

*1.84—	1.86	Mc.	†288—	296	M.c
3.5 —	3.8	"	†576—	585	"
7 —	7.15	"	1,215—	1,300	"
14 —	14.35	"	2,300—	2,450	"
21 —	21.45	"	5,650—	5,850	"
26.96—	27.23	"	10,000—10,500		"
28 —	30	"	†21,000—22,000		"
50 —	54	"	†30,000 Mc. and		
144 —	148	"	Above.		

* Available for emergency network purposes only. Normal Amateur activities are not permitted in this band.

† Temporary allocations.

* 14 Bridges Ave., Croydon, New South Wales.

TUBE TYPE DESIGNATION SYSTEMS*

Exceptions Prove the Rules in Numbering Radio Tubes

If, as the saying goes, "an exception proves the rule," then the rules governing the designation of radio tubes by numbers and letters are exceptionally well proved. For electronic tube numbers are like French verbs—more exceptions than rules. However, believe it or not, there is a system—several of them, in fact—and on occasion it helps to know what the various number and number-letter combinations mean.

Three standard systems now are recognised and used by most tube manufacturers. These are: (1) A receiving type system, (2) a cathode-ray system, and (3) an industrial and transmitting type system. These have been established as standard by a joint committee of two associations of manufacturers—the Radio, Electronics and Television Manufacturers' Association (RETMA) and the National Electrical Manufacturers' Association (NEMA).

Unfortunately, many tube types predate the systems now being used, and as a result we have several hundred cases in currently used tubes where the numbers do not follow the aforementioned systems. Also, some manufacturers still use numbering systems of their own instead of conforming to the voluntary standards set up by the joint committee mentioned above.

A brief review of the current numbering systems and some of those used in the past may help Amateurs who, when they browse through a tube manual, get the feeling they are wandering about in an unexplored jungle.

RECEIVING TUBE TYPES

Back in the 1920s, each manufacturer numbered or otherwise named his tubes as he saw fit and things very soon got very messy. The replacement problem was headed toward becoming unsurmountable, and so in 1933 the industry adopted the first voluntary standard numbering system—which although it has been since modified several times—still is used today for receiving tubes. This system calls for a number, a letter, and another number. An example, is our old friend, the 6L6.

The first number symbol determines the filament voltage within a certain range, to wit:

Rated Filament or Heater Voltage	Symbol
Zero	0
In excess of 0 and up to and including 1.6	1
In excess of 1.6 and up to and including 2.6	2
In excess of 2.6 and up to and including 3.6	3
In excess of 3.6 and up to and including 4.6	4
In excess of n—0.4 and up to and including n+0.6 where n is any integer	n

The letter or letters in the middle are merely serial designations—with two letters being used when manufacturers ran out of single letters. Today the letters I, O and P are never used—and also, double combinations such as "AA" are never used.

The final symbol in this system consists of one or more digits which indicate the number of useful elements for which terminals are provided. This includes separate internal shield and shell connections. A few spot checks with the standard base diagrams (which are used in the A.R.R.L. Handbook and G.E's. tube manuals) will show how this final symbol works out.

Often a suffix is used in this receiving type system. These, and their meanings, are: G—glass with octal base; GT—same except with a 1 and 1/8-inch diameter tubular bulb (known as T-9 size); M—metal-coated glass with octal base; X—low-loss base; Y—intermediate-loss base; and W—military type tube. A second suffix—which may be A, B or C and so on—means a superseding version of the same type which, according to the rules of the game, can be plugged into the same socket and should give as good or better performance.

That is the currently accepted receiving tube type designation system. But there are many exceptions. Numbers like 41, 80 and 12A carry over from previous years. We find another type of exception in the so-called "loctal" tubes whose designations all begin with a "7"—such as the 7C5. Obviously this plan does not conform to the filament voltage code above. Other exceptions have come about because the original purpose of certain tubes was not for "receiving." That is, some tubes often are used now for receiving purposes, but were originally designed, and numbered, in accordance with some other system. Samples of this type of exception are the 9002 and quite a few tubes in the 5500 series.

CATHODE-RAY TUBES

Being the baby of the family, the cathode-ray tube had a system slapped on it before it was hardly dry behind the filaments. As it now stands, this system calls for a number symbol which tells the maximum diameter of diagonal of the face in inches, a letter which is merely a serial assignment, and a letter-number symbol which designates the type of phosphor used. For example, the 16RP4 has a diagonal of 16 inches and P4 phosphor coating inside the face. However, there are a few exceptions—like the 905, 908, 1803 and so on.

TRANSMITTING TUBES

Under the inglorious heading of "tubes and devices exclusive of receiving and cathode-ray tubes" Amateurs will find their favorite transmitting "bottles" labelled with various and sundry letters and numbers which mean little, if anything.

The numbering of transmitting tubes was not standardised until 1942. Thus many tubes still being manufactured carry numbers and/or letters originally assigned under systems started by different manufacturers. For instance, the famous 807 and its brothers and sisters in the 800-series are carry-overs from private pre-war numbering systems. So are tubes in the 200- and 400-series.

In 1942 a standard number-letter-number system for transmitting and special purpose tubes was adopted—a plan which lasted only four years. However, a great many tubes still popular with Hams were assigned numbers under this system. Samples are the "Lighthouse" series like the 2C40 et al, the 4D32, 2E26 and others. Under this system, the first number symbol was assigned to indicate power rating of the heater or filament as follows:

Filament or Heater Power	Symbol
Zero	1
In excess of 0 watts and up to and including 10 watts	2
In excess of 10 watts and up to and including 20 watts	3
In excess of 20 watts and up to and including 50 watts	4
In excess of 50 watts and up to and including 100 watts	5
In excess of 100 watts and up to and including 200 watts	6
In excess of 200 watts and up to and including 500 watts	7
In excess of 500 watts and up to and including 1000 watts	8
In excess of 1000 watts	9

Next, a letter symbol indicated the structure and/or function of the device in accordance with the following schedule:

Type	Symbol
Monode	A
Diode	B
Triode	C
Tetrode	D
Pentode	E
Hexode	F
Heptode	G
Octode	H
Vacuum capacitors	L
Crystal diodes and rectifiers	N
Photo-emissive devices, etc.	P
Mercury types	R
Vacuum contactor-type switches	S

*Reprinted from G.E. "Ham News," Vol. 8, No. 6, Nov.-Dec., 1953.

Finally, a number symbol constituted a serial designation, and these serial numbers started with 21 to avoid conflict with the receiving type designations.

In 1946 this system was scrapped in favour of a pure numerical serial system starting with 5500—the system which is in effect today. Thus many of the newer tubes used by Amateurs are appearing with numbers in the 5500's and 6000's. Of course, as this "5500 system"—as it is often called—officially includes special purpose devices, Hams will find a great many industrial tubes mixed in with the newer transmitting types of interest in Ham operations.

Neither of the two systems outlined—nor any of the private numbering systems—was made retroactive. Thus some tubes now bear complex numbers relating to more than one system. This gets a little bulky, but does tell the story. Witness the GL-4D21/4-125A. Here the "GL" denotes a General Electric Company tube and the "4D21" and the "4-125A" explain how the tube has been listed under two different numbering systems.

GERMANIUM PRODUCTS

Under the long-hair title "solid state devices" we find one very old friend of the Amateur—the crystal diode—and one very new friend—the transistor. While at this writing the numbering system for such devices has not been officially promulgated by the joint designation committee of RETMA and NEMA, there is a system in use—a system which stems from the 1942-1946 transmitting tube system outlined above.

When crystal diodes began to be numbered—such as the 1N51 et al—the first symbol (the number "1") was in accordance with the 1942-1946 code and indicated zero power filament or heater. The second symbol, the "N," indicated a crystal device. The last number was merely a serial designation.

Then the transistor came along and began to carry numbers beginning with "2N—." (G-E junction-type transistors, for instance, are designated 2N43, 2N44, and 2N45).

Some manufacturers now want to code "solid state devices" by a system which in effect would pick up the pieces of several broken-down systems. They feel that it should go like this: The first number symbol would indicate the number of elements minus one—thus a 1N51 is a diode, a 2N45 a triode and so on; the "N" would indicate a "solid state device"; and the last number would be a serial designation. However, such a coding system has not been officially adopted.

★ ★

As long as this is a free country, no manufacturer ever will be bound to adhere to a standard tube numbering system. He can call his tubes anything he likes.

However, most manufacturers today do their best to ease the replacement problem by going along with the decisions of the majority on a voluntary basis.

This question sometimes arises: Just who decides precisely what number shall be assigned to a particular tube type under any of the currently-effective designation systems?

The answer is that RETMA registers all tubes upon request of manufacturers, assigning the next open number in the system in question.

★ ★

Now on the basis of the above rules and exceptions could you make up your mind whether or not to use, say an 862A in your next rig? Chances are you can't—and the chances are, further, that you won't bother to try when you find out that although this bottle has a 200-gallon input rating (and should run cool on the Ham bands!), it lists at $1322.00.

REMEMBRANCE DAY CONTEST VARIATION OF AWARDS

Following a motion to Federal Council and consultation with the Federal Contest Committee, the following variation of awards under Rule 17 will operate in the coming Remembrance Day Contest.

Instead of the three awards being given to first, second and third, in each State, these three awards will be given to the winners of the Phone, C.W. and Open Sections respectively.

It is felt that c.w. operators are at a disadvantage compared to those working phone or both phone and c.w. as they are so much in the minority and the change will encourage c.w. operators who would otherwise have little chance of gaining a certificate.

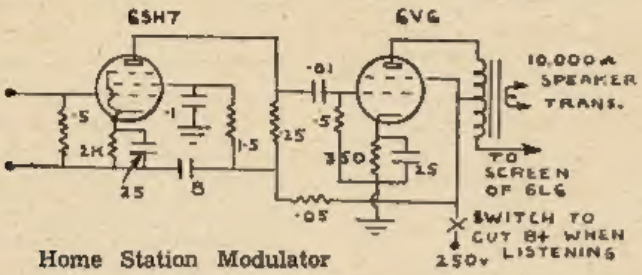
A NEW MODULATOR FOR THE TYPE 3

BY E. A. BARBIER,* VK5MD

HAVING tried various Modulators for the Type 3 and never being very satisfied with the results obtained, the author was talking to his old friend, Bob Manuel, VK5RT, who suggested straight out screen modulation, pointing out at the same time that this system was successfully used by cars of the Electricity Trust in S.A.

A modulator was quickly built up using a 6SH7 into a 6V6 with a centre tap 10,000 ohm speaker transformer as the modulation transformer. Results were excellent and the fact that one could modulate the 30-watt carrier was very pleasing to the writer.

No other power supply was used, the drain of the modulator and the transmitter measured 91 Ma., which the experts assure is well within the limits of the Selenium rectifiers.



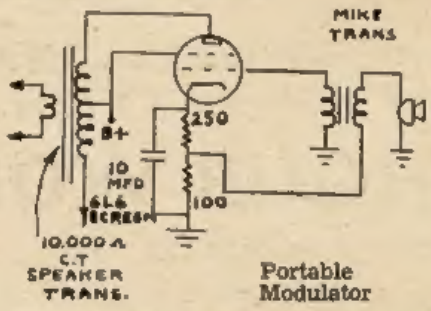
Home Station Modulator

The original suggestion was single choke Heising, which, instead of modulating the plate as in the old days, modulated the screen of the 6L6 in the final. This involved a resistor to drop the screen to 125 volts and a capacity in parallel to pass the audio. Here we came back to one of the drawbacks, that the unmodulated carrier was only half that of the full input.

Browsing through a contemporary magazine by VK2JU, the author noticed a modulator using a 6V6 with centre tap choke modulator for modulating the plates of two 7193s. Why not use this system for modulating the screen of the 6L6?

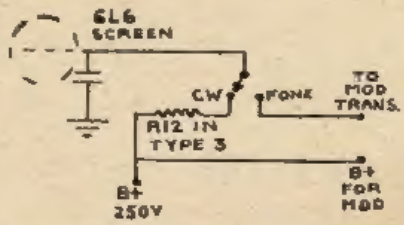
Herewith are the two circuits, one for portable work with a carbon mike and the other for home-station use using a crystal microphone.

The only adjustment needed to the rig is to tune up the transmitter in the c.w. position to maximum output as measured by r.f. meter lamp or what have you, then switch to the phone position, tighten the coupling until modulation causes an upward swing in the r.f. meter, lamp, etc., and a slight kick on the plate meter.



Portable Modulator

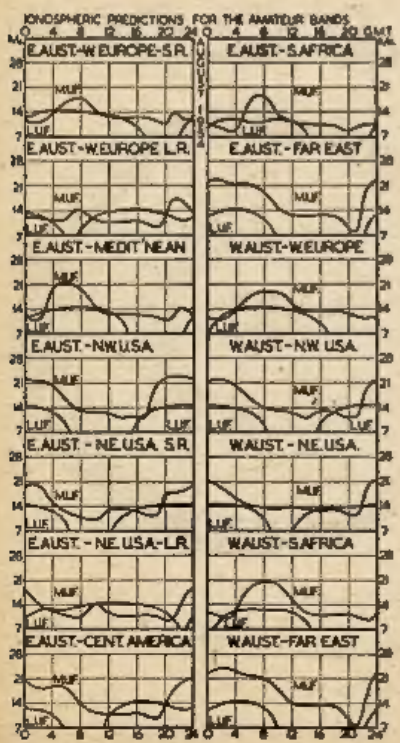
The switching system for the screen was that used in the series screen modulator described some years back and in case you have forgotten, it is given here:—



As a modulator for the newcomer, the author cannot think of anything simpler, and certainly much cheaper than buying an expensive plate modulation transformer, providing the new Ham has 250-300 volt supply for crystal and v.f.o., doubler stage and a larger supply for the final. VK5MR is using this scheme to modulate 80 watts to his final 807.

*C/o. H.M. Gaol, Adelaide, South Australia.

PREDICTION CHART FOR AUG., 1954



LONG WIRE ANTENNA

The editor asked a question the other day that reminded me of something perhaps a lot of Hams don't realise. You see, he recently moved to a spot where for the first time in his life he didn't have to bend the ends of a half wave 80 metre antenna. The switch apparently has awed him and he asked if we thought it would be worthwhile putting up a long wire on 80 metres.

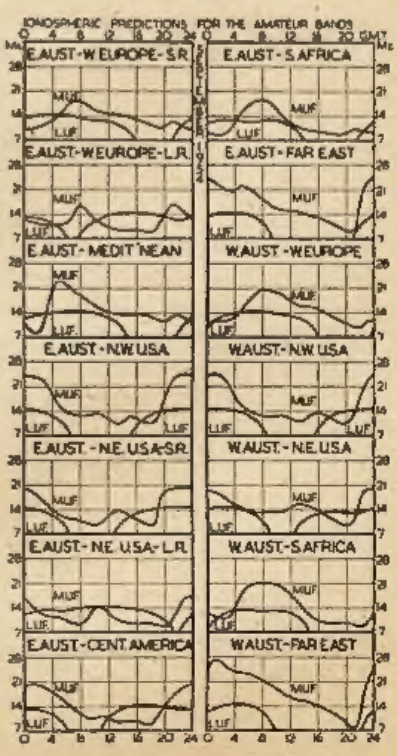
It seems his property is long but narrow. We were forced to advise him that unless he particularly wanted gain in that long direction (which he didn't) he ought not to go to any great pains to put up a long wire. And the reason is that a long wire gives you more losses than gains. In other words, relatively speaking, the nulls—broadside—of a long wire probably do more damage in general coverage work than the gain off the end does good. He's still wondering what to put up—and we didn't have the heart to suggest that probably his best bet would be a vertical (which he could have put up on any old lot).

—"Lighthouse Harry."

SHORT WAVE LISTENERS' GROUP

All persons interested in the formation of a Short Wave Listeners' Group within the Victorian Division of the Institute are invited to attend a meeting to be held in the rooms, 191 Queen St., Melbourne, on **Tuesday, 31st August,** at 8 p.m.

PREDICTION CHART FOR SEPT., 1954



AMATEUR CALL SIGNS

FOR MONTH OF JUNE, 1954

ADDITIONS

VK—

New South Wales

2JM—G E. Meaton, 67 Duff St., Broken Hill South.
2OZ—G McLeod, 82 Stoney Creek Rd., Beverly Hills.
2PP—F W. Twemlow, Station Gordon Rd., Moorebank, Postal: 64 Princess St., Brighton-le-Sands.
2VS—V V Petruchenia, 16 Glendale Rd., Turramurra.
2AAD—R Hodgins, Ross St., Glenbrook, Blue Mountains.
2AAT J. L. Hazelwood, Ridge Rd., Oakdale, via Camden
2ADD—D. L. Dowling, Wattle St., Sawtell.
2AET A Havyatt, 23 Archbold Rd., Roseville.
2AXU A. G. Weynton, Cr Elizabeth & Stanley Sts., Albury.
2ZAA—R K Dodd, 41 Richmond St., Tumut.
2ZAM—H. F McTelgue, 65 Clanalpine St., Mosman.
2ZAW—G. D. Wheaton, 738 Anzac Pde., Kingsford.

Victoria

3ER—E. V Read, 41 Charteris Drive, Ivanhoe East, N.21
3NR—N G. Roberts, 7 Orford Ave., Kew, E.4.
3AGM—G C. Muller, Roberts Rd., Belmont.
3AHP—B D Pronger, 5 Richmond St., Croydon.
3ZAA—G S. Sutherland, 92 Fawkner St., Essendon, W.5.
3ZAB—S. G. Baxter, 10 Chenhall Cres., Traralgon.
3ZAC—W. L. Ris, 163 Derby St., Kew.
3ZAE—R. J Elliott, 113 Bruce St., West Coburg, N.13.
3ZAN R. Neal, 11 Xavier St., Nth. Essendon.
3ZAR—N. M. Robb, 8 Kent Rd., Box Hill, E.11.
3ZAW—M. J Williams, 71 Shorts Rd., Merlynston.

Queensland

4PM—C. W Meech, R.A.A.F Station, Amberley
4ZAA—F. J Pettiford, 7 Fraser St., Sandgate, N.E.7.
4ZAB—C. T. Amoore, 46 Holland St., Northgate.
4ZAC—B. M Byrne, 81 Main Ave., Rainworth W.4.

South Australia

5FK—R. C. Fawkes, Beare Ave., Marleston
5IC—P. R. Crosthwaite, 216 Prospect Rd., Prospect
5JV J Vidale, 21 Haig St., Netherby.
5UF R. Fenwick, Station: Royal Flats, Mildred St., Port Augusta; Postal C/o. 5AU Broadcasting Co. Ltd., Box 247, Port Augusta.
5UW K. E. Wilson, Station: Station 5AU Residence, Anstey St., Port Augusta, Postal: C/o. 5AU Broadcasting Co. Ltd., Box 247, Port Augusta.
5ZAA—L. B. Wall, 38 Chatsworth Gr., Toorak Gardens.
5ZAM—R. D. Martin, House No. 20, Radium Hill.
5ZAW—N. C. White, 3 Derwent St., Cumberland Park.

Western Australia

6MN—D. A. McNaught, 96 Hobbs Ave., Collier, via Como.
6ZAA—W. J. Howse, 53 Ellen St., Fremantle.
6ZAZ—C. G. Andrews, 47 Canterbury Ter., East Victoria Park.

Territories

1GA—G. L. Abbs, Macquarie Island.

ALTERATIONS

VK—

New South Wales

2AN—8 Joycelyn Avenue, Chester Hill.
2BX 64 Princes Street, Brighton-Le-Sands.
2GO—Flat 8, 57 O'Sullivan Road, Rose Bay.
2LL—C/o. O.T.C Receiving Station, Bringelly.
2MZ—"Tree Tops," Bridge Road, Blaxland.
2WI—Station: 271 Castlereagh St., Sydney; Postal: G.P.O., Box 1734, Sydney
2ADQ—Lot 8, Lascelles Road, Narraweena.
2AGQ—5 Providence Road, Ryde.
2AHK—C/o. Richmond District Fishermen's Co-op. Ltd., River Street, Ballina.
2AJX—"Sylvandale," Princes St., Newport.
2ALF Station: 14 Station St., Mullumbimby, Postal: Intermediate High School, Mullumbimby.
2ALK—Flat 2, 45 George Street, Marrickville.
2AOM—Flat 2, 29 Hughes Street, Elizabeth Bay
2AOQ—99 Grafton Street, Bondi Junction.
2AQJ—No. 38(T) Squadron, R.A.A.F., Canberra.
2AT1—Newcastle Technical College, Wood St., Hamilton, 2N.
2AUP—99 Quigg Street, Lakemba.
2AVG—Station: 178 Golf Links Ave., Urunga; Postal: C/o. P.O. Bellingen.
2AYJ—Station 75 Essex Street, Epping; Postal: C/o. Brolite Pty Ltd., Cr., Ralph and Shirley Streets, Alexandria.

Victoria

3UF—Portable: C/o. Chief Signals Officer, H.Q. Southern Command, Melbourne.
3ABX—9 Cunningham Street, Banalla.
3ACE—Station Morrison Street, Birchip, Postal Cumming Avenue, Birchip.
3AFE—1215 Howitt Street, Wendouree, Ballarat.
3AJS—643 Hampton Street, Brighton, S.5.
3ARS—Falls Road, Trentham.

Queensland

4RF—21 Bovelles Street, Camp Hill, S.E.6.
4RS—Station: Main Street, Proserpine; Postal: G.P.O., Box 139, Proserpine.
4TY—State School, Wallangarra.

South Australia

5DH—129 Second Avenue, Royston Park.
5RZ—C/o. Station 5AU, Port Augusta.
5TV—16 Hanson Avenue, Heathpool.

Western Australia

6CD—37 River View Ter., Mt. Pleasant, Perth.
6CK—C/o. Dept. of Civil Aviation, Wyndham.
6FE—25 Heytesbury Road, Subiaco.

Tasmania

7DM—Station: C/o. D. M. Richardson, Stowport, Postal C/o. J. R. Smith, 31 Hopkinson Street, South Burnie.
7RC—Station Cambridge Airport; Postal: C/o. D.C.A., G.P.O., Box 541F, Hobart.

Territories

9AB—Station 3 Mile, Rouna Road, Port Moresby, Postal: P.O. Box 38, Port Moresby.
9QB—C/o. O.T.C. Radio Station, Lae.
9KT—The Residency, Rabaul.

DELETIONS

FOR MONTH OF MAY, 1954

New South Wales VKs 2CZ, 2TO, 2AIH

Victoria VKs 3ED, 3GB, 3LQ, 3PZ, 3UQ, 3VG (now operating under VK9VG), 3XS, 3AOL (now operating under VK7BL), 3AYD, 3AYR.

Queensland VKs 4TX, 4XD (now operating under VK2ND).

South Australia: VKs 5BF, 5EH, 5KS, 5OD, 5QM.

Western Australia: VKs 6NR, 6NY.

Tasmania VK7GC (now operating under VK4IC).

FOR MONTH OF JUNE, 1954

New South Wales: VKs 2ANY, 2ATJ

Victoria VKs 3BY, 3DT (now operating under 2VS), 3XU (now operating under 2AXU), 3AIC (now operating under 5IC), 3AMG (now operating under 4PM), 3ATD (now operating under 3AAD), 3ATE.

Queensland VKs 4DF (now operating under 3AHP), 4HU

South Australia: VK5JE.

Territories: VKs 9FK (now operating under 5FK), 9GM (now operating under 2JM), 9SK.

DX ACTIVITY BY VK3AHH†

DX HIGHLIGHTS

ZD7B is ZS6CW and intends to be active for some time on 14 Mc. c.w.

FP8AA's operation (on 7 Mc.) was scheduled for July (from 3XB).

An Argentine **Himalaya Expedition** (Zone 22) is represented by **LU0MA** (from BERS195).

During the present excellent **3.5 Mc. DX opening** what is believed to be the first contact between **Honduras** and this country on that band had been established by **VK2HZ** with **HR1AL** Congrats Bill!

W4QCW and **W4VZQ** will shortly operate from **Navassa Island** under the prefix of **KC4.**

BAND CONDITIONS

3.5 Mc.: As was to be expected, an excellent DX opening took, and is, at the time of writing, still taking place on this band. North American stations broke through as early as 0700z, while Central American conditions existed between 1000 and 1100z. The Pacific Islands now appear to be better represented and times are between 0700 and 1200z.

Gilbert 2FU (ex-GM3OY) reports ZM6AS, and Frank 2QL follows with VK1AC*, and ZK1BO, W6, W7. Dick 2DG heard KC6AA and VK1AC, Dave 3DY, Fred 3YS and Merv 3AFO worked VK1AC*, while Bill 3AJU reports ZM6AP*, VK1AC*, KC6AA. Don 3ALQ heard FO6AB, VR3CS, VK1AC, ZM6AP, and 3AHH's log shows ZM6AS*, VK1AC*, and VR3A, HR1AL, W7

7 Mc.: This band has also shown itself as a good DX band, the only limitation to its usefulness being inactivity on the "DX side." European conditions existed over the short route between 1800 and 1900z, and over the long path between 0600 and 0630z, South and Central America broke through between 0600 and 1200z. Openings to the Far East, Pacific Islands, and North America were observed between 0800 and 1400z, Heard Island came through around 1000z, while Africa was workable between 1300 and 2000z.

Apart from W contacts, these are this month's reports: Frank 3QL QSOed CO8AQ*, and heard VR3A, YV5DE, HL1AB. EA9DF Don 2BS worked FU8AC* on phone and JA3* Noel 2AHH managed QSOs with YS1O* and KH6*, while Laurie 2AMB reports VK1PG* Heard Island*, VS6RO*, VE2ZZ*, VK9RH* and YV5DE* Phil 3AQO worked KH6* and KL7*. Don 3PV/3APV heard LA2HE, G6JU, SM7BJR, I1LI and other Europeans. Cal 3WQ heard on phone FK8AB, LU1AB LU3JP, LU3UE. Don 3ADI phoned with FU8AC*, KH6IJ*, and Ray 3ATN spoke to HP3FL* Ray 9RH worked KP4CC* and heard KG6 on phone Eric BERS195 heard VQ4RF OQ4RU, OQ5CP, KP4CC, YV5DE, VR1AB, ZK1AB, CO8AQ, DU7SV and on phone HP3FL. Here at 3AHH we have KP4CC*, VE* and FU8AC* on phone, and 8M, VP8KX HB, G.

14 Mc.: General conditions on this band seem to have improved considerably. During June the band demonstrated at times excellent conditions to W land and Central America between 0200 and 0800z, and also from about 2000z to 0000z. South America broke through during the same periods, but conditions to that continent did not seem to be as consistent. Europe was workable over both short and long path, times being 0400-0700z, 0900-1400z, and 2100-0100z. Africa and Heard Island were well represented around 0400-0600z.

Considering W contacts as commonplace for the Eastern part of our Continent, we have, on c.w: George 1DY with a series of ZSs* and Ws*, followed by Pete 2FA who QSOed a series of 8Ms*, DLs*, Gs*, CT1VB*, PA0*, ON4*, HB9*, KA* 2QL keyed with XE1AX*, ZS1BK*, ZS6FN* ZC3RO* and heard VS4RO. ZS3B VK1EG, VK1DY, VK1PG 2AMB is the next in line with VR3A* Alan 3CX QSOed VR3A*, KV4*, VK1DY*, XE1QB*, XE1AX*, VK1KM/ZC2* VS4RO*, VS5RO* VK1PG*, ZS1BK* Ken 3KR worked KL7*, VE7* FK8AC* TI2TG*, KZ5IL*, 4S7NG*, OK1*, SM5BWO MM* ON4*, EA*, VU2*, VS6* 3PV/3APV reports VR3A*, I1*, XE1MJ, C3AR, DU1UP VU2 DL, OD5EX, F7 CO2SW 3YS follows with ZS1BK* ZS6CY*, ZS2BC*, VR3A* ZS5DE, TA3AA, DL. 3ADI keyed with YU*, while Mac 3ADM managed a QSO with XE1MJ* Bob 4RW mentions TI2WR* KV4*, FI8AT* John 5HI QSOed LA*, KL7*, and up comes Rob 5RG with VK1EG*, VK1DY*, ZS6*, KA8*, followed by Ray 5RK who reports KL7*. The W.A. representative in these notes John 6GU, worked a series of ZSs*, ZE2AC*, VK1PG*, DL/DJ*, ZC5RO* Ray 9RH (Norfolk Island) contacted TI2TG* BERS195 heard LA, TI2TG, VK1HM/ZC2, VP9BN, XE1MJ, VR1A, ZK1AB, VK1PG, FI8AZ, VU2, VS5RO, HS1D, HC1FG (0030z), KZ5IL, TI2AB, DU, JZ0KF, C3AR, ZS1BK.

And here is 28 mx phone: 2FA is the first on the list with VS6, DU, KG6, JAs. Neil 2HG worked ZS5QV* Ken 3KR mentions VE*, KZ5DG* Gerry 3AGQ presents a good list including VP5AR*, CO2BK* CO2GO*, CO2OZ*, YS1MS* TG9AI* KV4* HR1FM* VP9AX* XE2FC* XE1FT*, TI3LA* Ray 3ARO worked ZSs* and 3ATN reports VK1PG*, YS1MS*, 5A3TF* VE* ZS* VQ2DT*, VK1DY*, HR1AA*, HR1FM* 4RW spoke to YS1MS* TI2SJ* VE* KV4* VP6CJ* CO2BL* 4X4DK*, VR3CS* KL7* VR3C* PJ2AQ* FI8AT* 5HI phoned with KL7*, ZS1OF*, HR1FM* TI2AB*, TI3LA* Len 9OK reports hearing a series of Europeans and South American stations, while our s.w.l.s report the following BERS195: HP1JF, VP9BN, and Jim Hunt: Gs, GW, PA0, F7, DLs, VE, KL7, KA/JA, VR3, DU, XZ5, VS2, VS6, CR5, YV5, ZS5, ZS6, ZC3.

21 Mc.: Conditions have deteriorated but occasional break-throughs to North America and Africa still exist. Some short skip has also been observed. North American conditions were likely between 0000 and 0300z and African conditions around 0400-0700z.

Norm 2ALJ worked W5*, W2JAC MM*, W4VVU MM* Reg 2GX QSOed W8*, W4VVU/MM* 3YS heard W4VVU/MM 3ATN reports W*, KH6* OQ5RU* ZE2KP* and 6Q1 managed QSOs with ZE2KP* ZS6RA*, ZS5QV*, VQ*, W8* Pat 2PM spoke to TI2LA*, 4S7YL*, CO2*, ZM6*, KZ5*, HP3FL* Jim Hunt heard W2, W3, W4, W5, W6, W7, W8, W0, KL7, KG6, KA2, and KH6.

27 or 28 Mc Well, it had to happen! One of our consistent stations on this band reports that despite listening activity no DX was heard and, consequently, none was worked However, this was to be expected as well as we can be sure that one day the band will be wide open again. Anyway, thank you Norm 2ALJ for the report.

GENERAL NEWS

Bill **VK1EG, Mawson, Antarctica,** has been quite active. Several stations in Eastern VK have now also worked Bill (0600-0800z). Congrats! (from 2QL, 2AMB, 3AXX, 5RG!). ZD6BX intends to be on for five years (from BERS195) We are pleased to welcome W2JAC/MM and W4VVU/MM, who are at present in Australian waters (from 3GX, 3YS). LA7UE, on Bear Island, counts as Spitzbergen and LB9IC may shortly be another station there (from BERS 196). EL2X is ex-DL4EA, OE1EG. ZD9AB is active on 14 Mc c.w around 1730z (from BERS 196) CR8AD is on 14008 Kc Besides VK1 stations ZC2AC and ZC2AD are on Cocos Island. G2RO hopes to be in Melbourne before Christmas (1954) (thanks 3CX for the last items). The VK1 fraternity registers the addition of another Ham on Macquarie Island, **VK1GA.** During his trip around VK, Frank **VR4AE** had personal QSOs with quite a few of us.

Continuing our **special 3.5 Mc. DX information,** here is some more news. **ZM6AS** recently active on the band, is ex-ZL1AJJ **VR6AW** has also been on. **ZM6AR** is on 3565 Kc. using c.w. and phone. South America is represented by YV5DE, LU3EX, LU3EL, PJ3AJ PY2FV (from ZL1CI, VK3XB, BERS195)

And here is good news for our s.w.l's., as mentioned in VK3 Divisional broadcasts At the June meeting of the Council of the Victorian Division a motion recommending (to F.E.) the establishment of **S.w.l. Groups** within the Institute and the issue of **Official Receiving Station Numbers** was agreed to.

The writer's main reason for moving the above was the fact that our s.w.l's. have greatly contributed to these notes and have supplied many a good and essential news item in the past. S.w.l. activity is, in fact, another very interesting branch of Ham Radio with its own problems whose solution should be eased by the formation of S.w.l. Groups and the issue of station numbers. S.w.l's. resident in Victoria are asked to communicate with the Secretary of the Victorian Division.

We wish to welcome to the ranks of transmitting Amateurs the new A.O.L.C.P licensees and let us hope that one day they will become enthusiastic DXers after proving their c.w ability.

Our "black-list" of non-Ham Stations operating in exclusive Ham bands will again be published as soon as new reports have been received.

QTHs OF INTEREST

4X4DB—Paul Vidor, 60 Ibn Gabirol St., Telaviv, Israel.
HK1TH—Gabriel E. Tietjen. Barranquilla, Colombia
OD5AV V A Kupelian, P.O. Box 235. Tripoli, Lebanon.
KS4AV—Swan Island, C/o. P.M. Tampa, Fla., U.S.A
EA9DE—QSL via EA2CA
FO8AJ/MM—Via Hallicrafters, 4401 W 5th Ave., Chicago 24, Ill., U.S.A.
HK4DP—Box 708, Medellin. Colombia.

Rare QSLs were received by—3AHH FI8AR, ZK1BI, CR9AF, XE1TR, YK1AH, ON4QX, 3CX KW6BB, YV5FV, VK1HM ZC2, 3ATN 5A3TF VQ2DT ZD4BF FI8AR 5HI KA0IJ, VP9BM CP5EK, ZE3JY 4X4FA JZ0KF CE3DZ ZD2DCP 5RK JZ0KF, BERS195 CP.BX, CT3AV, HC3OL HK1TH OA4AI OD5AV, TI2RU, VQ2DT, VQ3RJB SM3AKW/MM.

And the monthly "thank you" goes to VKs 1DY, 2FU, 2PA, 2QL, 2RS, 2AHH, 2ALJ, 2AMB, 2AQO, 3CX, 3DG, 3DY, 3GX, 3HG, 3KR, 3PV/3APV, 3WQ, 3YS, 3ADI, 3ADM, 3AFO, 3AGQ, 3AJU, 3ALQ, 3ARO, 3ATN, 3AXX, 4RW, 5HI, 5RG 5RK, 6GU, 7PM, 9OK, 9RH, and to our s.w.l's. BERS195 and Jim Hunt.

DX C.C. LISTING

PHONE

Call	No.	Ctr	Call	No.	Ctr
VK4HR	12	172	VK4RT	22	124
VK3BZ	3	168	VK4WJ	17	123
VK4FJ	21	164	VK4DO	20	116
VK3EE	10	163	VK4JP	8	114
VK6RU	2	160	VK5MS	24	109
VK3JD	1	158	VK4CB	28	109
VK4KS	9	152	VK3WM	29	109
VK6KW	4	150	VK3HO	25	103
VK3ATN	28	145	VK2ADT	13	102
VK3LN	11	141	VK3AHA	15	102
VK3AWW	14	140	VK6PJ	18	101
VK3JE	7	139	VK3IG	5	100
VK4WF	16	137	VK3QQ	18	100
VK4RW	22	137	VK3LC	27	100
VK6DD	6	136	VK3AUP	30	100

C.W.

Call	No.	Ctr.	Call	No.	Ctr
VK3BZ	6	214	VK3FH	21	134
VK3KB	10	200	VK4RF	11	125
VK4HR	8	196	VK3HT	37	124
VK3FH	15	191	VK3YD	27	123
VK4FJ	29	191	VK3EK	3	122
VK4EL	9	175	VK3JI	25	114
VK3BY	45	172	VK3PL	38	117
VK3CX	36	160	VK3UM	12	116
VK5RX	23	159	VK3OY	44	115
VK2EO	2	158	VK7LJ	24	114
VK3CN	1	151	VK4DA	7	113
VK3QW	16	151	VK7LZ	17	113
VK6RU	18	150	VK4RC	13	107
VK5SA	28	150	VK3XK	41	107
VK5BO	33	150	VK6KW	40	104
VK4QL	36	148	VK3YC	34	103
VK4DO	30	144	VK3RJ	42	102
VK3XO	43	144	VK3APA	14	101
VK3VW	4	143	VK3NC	19	101
VK3QL	5	142	VK7OA	32	101
VK3XK	20	138	VK3PG	45	101
VK3JE	21	137	VK7RK	22	100
VK3YL	39	135	VK3AEZ	35	100

OPEN

Call	No.	Ctr	Call	No.	Ctr.
VK3BZ	4	224	VK5LC	56	118
VK4HR	7	210	VK7LZ	23	116
VK4FJ	22	206	VK3VQ	46	116
VK3JE	12	198	VK3ASW	53	116
VK6RU	8	195	VK3JA	43	114
VK2NS	16	195	VK2ADT	14	113
VK3HG	3	181	VK3HO	38	111
VK4EL	10	175	VK3MM	49	111
VK6KW	13	171	VK4RC	21	110
VK2DI	2	170	VK3ZB	34	110
VK4DO	15	168	VK9XK	54	109
VK3KX	1	167	VK3ZC	28	108
VK4KS	24	167	VK3KR	56	107
VK3AWW	45	150	VK3YL	11	106
VK6GW	48	150	VK3AWN	38	106
VK3LN	44	144	VK6WT	58	105
VK5FL	26	143	VK3VN	14	104
VK4WF	44	141	VK4UL	27	104
VK3HT	41	141	VK6PJ	44	104
VK3MC	5	139	VK6PW	50	104
VK3QP	19	137	VK3HZ	17	103
VK6DX	42	137	VK7KB	30	103
VK4RW	32	137	VK2TI	37	103
VK6DD	22	136	VK3YS	57	103
VK2ADE	25	133	VK7RK	31	102
VK2AHA	9	128	VK4TY	35	102
VK2AHM	26	125	VK5HI	51	101
VK3PG	47	123	VK2ACX	6	100
VK3JI	33	119	VK7TG	39	100

† 10 Belgravia Ave., Box Hill North, E.12, Vic.
* Call signs and prefixes worked.
z — zero time—G.M.T.

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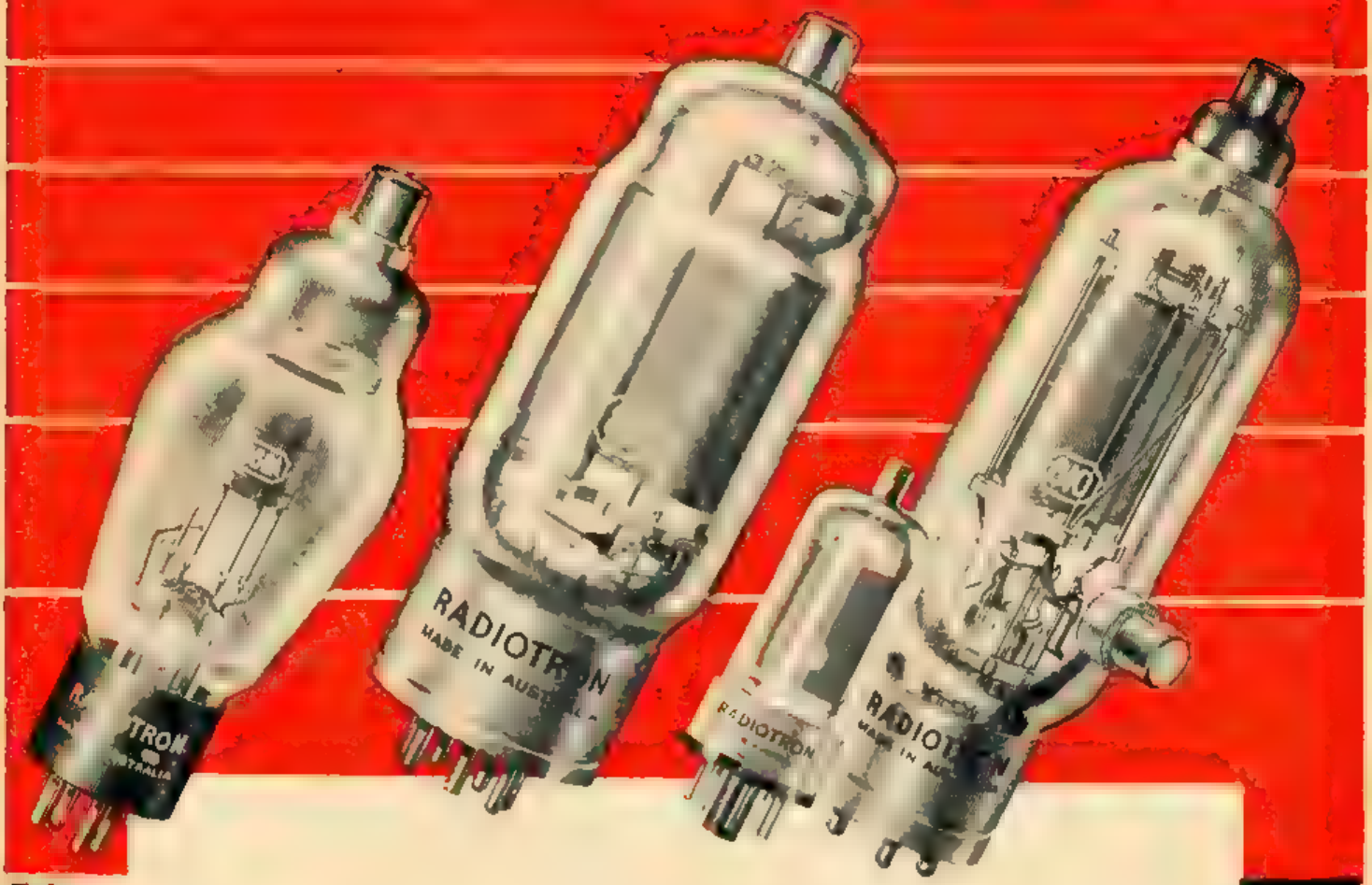

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FIFTY MEGACYCLES AND ABOVE

VK5 PORTABLE EXPEDITION TO MOUNT LOFTY

On the 10th June, Ken 5KC, Col 5RO and Keith 5MT journeyed to Mount Lofty (2,384 ft.) with transmitting and receiving equipment for 3.5, 50, and 144 Mc. The object being to attempt communication on 144 Mc. with VK3 stations

At 2012 hours S.A.T. on 10th, 3ATN, in Birchip (360 miles) heard and QSOed 5RO, 5MT and 5KC, signals both ways averaging RST 559, these being the first contacts between VK3 and the Adelaide area. At 2120 hours a weak signal was heard which was believed to be 3JX in Hamilton. The following morning from 0700 hours to 0830 hours S.A.T. signals from the VK5 party were heard in Nagamble at RST 559 by 3CI (400 miles). No contacts resulted because of a blow-up in Syd's tx. 3LN in Melbourne was heard calling CQ DX on phone, R5 S8, at 0810 hours the same morning 420 miles). This station was [illegible] but no contact resulted. 3ATN was again QSOed at 0940 hours S.A.T., this time all contacts were on phone, signals R5 averaging S6.

The v.h.f. gear used at Mount Lofty consisted of three separate standard SCR522 tx's (input 15w.), a crystal controlled converter—6J6 push-pull r.f. amp., 6J6 push-push mixer, 6AK8 i.f. amp. (3-4 Mc.), osc. section 7.1 Mc. xtal 9003 tritet x 5 and 9002 multiplying by 4 (the converter was used with a BC348). The beam was an 16 element horizontally-polarised broadside array.—5MT.

NEW SOUTH WALES

June had many interests for the V.h.f. Group. The excellent lecture on the "Slide Rule," given at the June meeting by Ken Andrew, 2ATK, was very instructive and most enlightening to those who had not mastered this device, proving that the Slide Rule can be used to a great advantage when wrestling with mathematical calculations that may be met in solving problems associated with Ham Radio. Ken used a 40-inch demonstration rule he had constructed. It was surprising the number of rules that were pressed into service by those present to follow the various problems Ken explained. A vote of thanks was most ably moved by Fred 2PF.

An interesting piece of gear was displayed at the meeting by Con 2LZ. This was his modulator for the 2 mx rig in which transistors were used in the speech amp., giving very good results.

The one-hour scramble held on Sunday, 6th June, was won by John 2ANF/P, 28 points, followed by Bill 2ABZ 26, Adrian 2HE 25, Cliff 2LG 24 with 2OA, 2APQ, 2DF 22, 2AKK 20, 2HL 17, 2QZ 16, 2PF 12 and 2HO 5. Although all stations taking part did not report in their score at the conclusion of the scramble and the total number of stations were less than in previous scrambles, an enjoyable hour was had and congratulations to John for a fine effort.

The Fox Hunt was held on Sunday 13th. Horrie 2HL took the role of the fox with Roy 2HO as assistant. Those taking part were 2OA, 2ANF, 2AJZ, 2LG and 2AFM. Horrie proved a very elusive fox for while leading the hounds a merry chase before lunch when 2OA and 2AJZ were the closest to his lunch-time location, but nobody reckoned with a gremlin taking up residence in Horrie's rig and preventing the r.f. from getting out via the antenna, with the result that nobody found the fox at the final location. However the weather was excellent and the hounds were really given an opportunity to try and locate a very weak signal.

At the request of the Divisional Council, the V.h.f. Group submitted recommendations for a complete 144 Mc. tx and rx, each complete with its own power supply and antenna for use as a relay link between the 7 and 3.5 Mc. tx's used for the Sunday morning 2WI broadcasts. The recommendations were accepted and ratified at the Division's June meeting. The equipment will consist of a 20w. a.m./f.m. tx and the rx a crystal locked cascode converter feeding into a 7 Mc i.f. channel with provision made for both a.m. and f.m. reception. The Group have undertaken to construct the equipment, full plans and details are now being prepared and will be published later.

The results of the Autumn Field Day held on 16th May are as follows. Section 1—Highest score by a field station, 2OA, Mt. Gibraltar, 1402 points; Section 2—Highest score by a home station 2WH, Forbes, 846 pts., Section 3—Longest distance worked, 2ANF (Razorback) and 2WH (Forbes), 158 miles.

Scores of stations whose logs were received by the closing date were 2OA/P 1402, 2ANF/P 1245, 2HL/P 883, 2WH 846, 2AZO/P 730, 2YR/P 630, 2YM/P 588, 2HO 481, 2HE 462, 2LG/P 456, 2ABR 150. Congratulations to the winners and especially to Hugo 2WH for a fine effort, proving that country stations taking part in these contests can give a very good account of themselves.

Antennas are still being experimented with out at Forbes. Hugo 2WH now has stacked vees on 2 mx beaming on Sydney. Briefly the construction is two vees stacked half wave apart, each leg eight wavelengths long, the included angle is 35 degrees, highest point is 20 ft. above ground with a downward slope of about three degrees towards the open end. Results are promising as most nights Hugo puts a good signal into Sydney and Bob 2OA and Cliff 2LG were copying for the first time.

Fred 2AGY, at Newcastle, has erected a five over five which has increased signal strength both ways with Adrian 2HE during their nightly skeds.

Dave 2BZ, of Newcastle, was heard with a very nice signal working 2HE, 2APQ and 2WJ. As this was his first contact with John 2WJ at his new location at Bringelly, both were delighted with the result, a distance of about 92 miles. Max 2OT is now operating for a short period each night from the Petersham Technical College under the call 2YY, so keep a watch on 144.15 Mc. for Max. We hear that Norm 2JW, of Orange, is running low power to a s.s.b. tx on 2 mx, would be interested in further details Norm.

New stations heard on the band during the month were Harold 2AWH, of Auburn, on 144.6 Mc and the first limited license call to be heard is Dennis, VK2ZAW, of Kingsford. Welcome to the band chaps, let's hear plenty from you.

50 Mc. has been given some good publicity in the north by Jack 2ADT, at Inverell. Jack is stirring up interest in that district and is reported to have worked 4GG, of Yarraman, and is also getting several of the others interested in 2 mx.

Here are a few more frequencies: 2ABO 144.15, 2YY 144.15, 2KS 144.3, 2XX 144.6, 2AZK 144.6, 2ABH 144.216, 2ARM 145.2. More will be listed next month.—2APQ.

VICTORIA

The highlight of v.h.f. activity in Victoria remains in the Western District with 3ANQ at Warrnambool, 3AKR at Westmere, 3ACE at Birchip, 3RR at Horsham, 3ATN at Birchip, 3HG at Coleraine and the VK3s at Renmark and Mt Lofty. This gives excellent opportunity for DX from Melbourne in the westerly direction. The best contacts so far have been 3ATN at Birchip (183 air-line miles from Melbourne) working 3BQ, 3LN, 3YS, 3ACH 3CR and 3CP. Ray has also worked 3CI at Nagamble and the VK5s at both Renmark and Mt. Lofty. Another excellent contact was a cross band one with 3ADU portable on Mt. Dandenong working 3HG at Coleraine, approx. 210 air-line miles. 3ADU was transmitting on 144 Mc. and receiving 3HG on 50 mx. It was a very excellent performance for Eric's 8w. mobile. 3HG has also worked 3BQ, 3ATN, 3ACH and 3YS cross band.

The DX highlight of the month was the reporting of 3LN's Melbourne signals at Mt. Lofty at R5, S5 to S6 on phone. This is the first 2 mx signal to get through from Melbourne to Adelaide and Len is looking forward to the next Mt. Lofty tests in the hope of a two-way contact. The air-line distance between Mt. Lofty and Melbourne is approx. 427 miles. It has also been reported that 3LN has been heard at Renmark. A two-way contact between capitals now seems a possibility as the VK3s were being heard by 3CI at Nagamble 390 air-line miles) at good strength, but unfortunately Syd's power supply brake down when he turned over to transmit to them. It is significant that stacked beams seem to be doing the job as Syd runs a 30 el. one and 3LN a 20 el. The VK5 boys at Mt. Lofty used a 16 el. job. Large stacked beams are under construction at 3ATN, 3BQ and 3AKR. The height of the beam also seems important as 3ATN and 3LN have their arrays up 80 ft. although 3LN is in the valley of the Maribyrnong River and is only clear towards the south. 3ATN has had some patchy signals both ways from 2WH at Forbes, but with the construction of the new beams, stable

CORRESPONDENTS PLEASE NOTE!

It is the intention of the Magazine Committee to continue to publish the magazine as near as possible to the first of each month. As some correspondents over the last few months are forwarding copy late, they are reminded that **copy date is the 8th of the preceding month.** If you have been sending copy before that date, our thanks go to you; but if your copy has been arriving at 191 Queen Street, Melbourne, after the 8th, here is a warning!

Rather than hold up production of the magazine, in future no responsibility will be taken for non-published notes that arrive after the 8th.

Remember! The 8th is not your posting date, but is the date of copy arriving in Melbourne.

QSOs seem a definite possibility even during the winter months and we are hoping for excellent DX during next summer.

The v.h.f. meeting provided members with an interesting lecture on 2 mx mobile gear given by 3ALY who brought in his neatly constructed gear, featuring a xtal controlled plate modulated tx with an input of about 8w. The rx was an r.f. stage into a co-axial line super regen. detector and audio stage. The antenna was a 3 el. close-spaced. The meeting was also able to welcome chaps who would be eligible for their limited license but as yet, at this location, only 3ZAA at West Essendon and 3ZAR at Box Hill have been heard. A very hearty welcome to the band is extended to the new limited licensees and we hope you enjoy your stay on 2 mx.

The last fox hunt was instrumental in drawing nine cars away from the fireside and although the hounds were hot on the trail the whole evening, the only catches were made by 3ADU and the 3YS-3ABA combination. The evening wound up with a post mortem held at 3LN's shack. Several new mobiles are at present under construction and we are hoping they will be on for the August hunt. What about building a small mobile for the car for the summer hunts as 2 mx mobile has certainly caught on round the Melbourne suburbs and considerable activity is anticipated during the summer months, especially from the new limited licencees. The next fox hunt is on 11th August and will be an excellent try-out for the gear. As the hunts are now finishing up at a secret 2 mx ham shack, it gives the boys an opportunity to see the other fellow's gear.

3VZ has now got his mobile running excellently and maintained 100 per cent. contact with 3ADU at Mt. Dandenong from his home in Balwyn down to Frankston. Jack has also had 100 per cent. contact with 3LN, 15 miles away whilst he has been cruising around the suburbs. Jack used a 5763 in the final with excellent results.—3LN.

SOUTH AUSTRALIA

There seems to be one sure way of getting some activity on the v.h.f. bands, and that is to report an all time low. It was hardly two days in the post when in came a report from Tom 5TL, at Renmark, of a measure of success from that area, on the 2 mx band. Up till that time 3ATN had heard Tom, but there had been no confirmed contact, so Hughie 5BC brought along his converter and 3ATN was read 559. As he couldn't hear Tom, a rush trip from Renmark to Hughie's QTH resulted in a two-way contact which is the first VK3-VK5 contact, however small the distance as far as my memory goes.

Almost on top of that piece of good news came the visit of Ken, Col and Keith in the middle of the month to Mt. Lofty, with its great success. I "dips me lid" to anyone who camps out anywhere at this time of the year, especially on mountain slopes. However, everything had been well planned before hand and a sound liaison channel on 3.5 Mc. was used to establish contact with the VK3 end. Hughie at Berri was able to make contact with the 5MT, 5RO, 5KC combination via 5TL who was using 2 mx to Hughie and 3.5 Mc. to 3AGD, who made contact with Ken 5KC through 3AGD. A good two-way contact rewarded 5BC's efforts who had been listening on 2 mx to all that had been going on. Hughie has an 828 final with about 65 watts feeding a 16 el. beam also. He has also taken the precaution of being able to key the tx, after previous thwarting experience! Bill 5HD and Clem 5GL are making fairly regular contacts with Hughie, but as yet Tom cannot make the grade. Never mind Tom, you'll be able to compete with "Granpappy" Parsons now—a few yarns to swap perhaps.

We have another starter this month with 5LE at Gelga, on the railway line between Waikerie and Karoonda. A cross-band 3.5-144 Mc. contact with Tom, 5 and 5 resulted after some very good work by 5LE. Seems he had built a converter and a g.d.o.; the latter checked up on Lecher wires and the converter lined up. In true country style, fencing wire was made into a "city-slicker" under the guidance of Tom and a few days later two calls from Tom resulted in a contact. Nice work chaps.

A few new calls appearing on the v.h.f. bands now that the Limited A.O.C.P. license is available, but not as many as I had expected, however, I shall live in hopes and will blow the dust out of the rush boxes and converters and put back the borrowed tubes into the tx power supplies.

Do not forget chaps that there is a bonus of 25 points score for v.h.f. contacts in the R.D. Contest. Maybe VK5 will collect this year! I know this for a certainty—we will receive all the logs for checking so up and at 'em lads! —5XU

WESTERN AUSTRALIA

The v.h.f. scene in W.A. for June provided some items of interest. One important point was the allocation of the first limited A.O.C.P. call sign of 6ZAA to Wally Howse. Though not yet heard on the air, he has the rig under way and should be active 'ere these notes appear in print. Broadly his gear consists of xtal locked converter and m.o.p.a. tx using an 815 operating on 144 Mc. Cec. Andrews, another A.O.L.C.P. holder, is battling with the paper work leading to the issue of his call sign, and it will be interesting to see who will knock up the first contact here.

6GU put an appearance on 144 Mc. recently with a mod. osc., but signals were fairly well down over the 12 mile path to 6HK and inaudible at 15 miles approx. to 6BO. Best get out the xtal and a couple more tubes John. 6WJ had an anxious time recently; received an urgent call from home while at work that smoke was curling up from under the door of the locked shack! All speed records East Perth-Mt. Hawthorn were smartly smashed and a smouldering power transie revealed. I bet he won't leave the power on again!

6DW has been putting in an appearance on occasions on 50 Mc., but cross-band tests to 144 Mc. have been poor. 6BO still tied up with shift work, but is spending some time on recently acquired disposals gear. One item of interest is the conversion of an ASB4 to 288 Mc. as per 5PU. 6GB now more active on 50 Mc. Must have caught up with some of those chores, Jack; also sports a variety of frequencies in 144 Mc. nowadays. I believe there was quite a stir on 30th June when a terrific burst of sporadic E took place. Nothing unusual was observed in VK6, but activity would be just about nil, with most of the gang out or at work, so a chance for a mid-winter opening on 50 or 144 Mc. may have been missed.

5KC and 3ATN made an excellent 144 Mc. QSO out of a portable trip to Mt. Lofty; fine effort chaps. As 6AG was saying recently on 144 Mc. VK6 does not lend itself well to portable trips to high spots, unless one is trying to work across the Indian Ocean. 6RK is still having trouble with the 2 mx. converter. 'Tis always the same when you try to improve something that's working well, Roger. 6CC has been very quiet lately, hope that 600 volts didn't permanently damage the 615. Frank Heard 6HS announce his intention of coming on to 50 Mc. many moons ago; what's happened Harry? No sign of you as yet. 6TB is another prospect who has not yet shown up.

Nothing more has been heard of the proposal to form an emergency network in this State, but it is anticipated something will be done in the near future. Some of the v.h.f. gang are very enthusiastic, although to realise the full possibilities of the scheme, it really requires one to have some form of auxiliary power supply. So we may, before long, have a burst of portable activity with batteries, etc., well to the fore.—6HK.

TASMANIA

This month we have much pleasure in reporting that 144 Mc. activity is on the increase in the South. 7OM advises that 7MY has now staged a comeback and has established a 144 Mc. link into Hobart from his location at Sandford. 7AJ and 7LE being the active stations in Hobart and these two supply the Hobart end of the link. It is also anticipated that 7RM and 7OM will be active on 144 Mc. in the near future.

Frequencies for these stations are: 7AJ 144.136 Mc., 7MY 144.27 Mc., 7LE 146.5 Mc., 7RM 145.18 Mc., and 7OM 145.512 Mc. At present, details of the equipment used is not to hand, however we expect to be able to supply these details in a future issue.

In Launceston, v.h.f. activity is confined to 144 Mc., however 7BQ and 7LZ have both just completed xtal locked converters for 50 Mc. 7XW is also expected to operate on 50 Mc. for the next DX season and as VK7 has had less activity in the Ross Hull Contest than any other of the States, more new signals from here are urgently required. Now is the time to prepare for this Contest, so let's hear the old call signs such as 7CW, 7AB, 7NC and 7XL again this season.

Much interest was shown to the statement in the VK3 notes for June that the Arthur's Seat-Launceston 144 Mc. link could be again made under normal conditions and local stations here are willing to conduct tests over this circuit at any time that the "Seat" is occupied and to arrange transmitting and listening periods.

To create interest on the v.h.f. bands should we not organise a 144 Mc. Contest to be held during the Autumn months? Owing to our sparcely populated areas we possibly cannot hope to compete with the more heavily populated continents on these bands, however a distance contest would create more interest and in so doing help Australia to establish longer 144 Mc. links and so gain v.h.f. prestige. Judging by the popularity of the Ross Hull Contest, Australia should be able to conduct two contests for the v.h.f. operator per year, particularly so now that technician's licenses are being issued.

Also the publishing in "Amateur Radio" of the full list of awards available to v.h.f. operators, together with the list of qualifications required to earn these awards, would help to create greater interest and consequently greater activity on these bands.—7LZ.

FEDERAL, QSL, and DIVISIONAL NOTES

FEDERAL

GLIDER AIRCRAFT RADIO IN 3.5 Mc. BAND

Representations have been made recently to the Amateur Administration with reference to the use by Glider Aircraft of the 3.5 Mc frequency. The Federal Executive felt that this might prove a hazard to the aircraft, in view of the fact that this was the c.w. portion of our band.

The Department has pointed out that the Glider Service has operated this frequency for the past eight years successfully, and the possibility of interference is not considered serious enough to require transfer to another portion of the band at this juncture.

It is also worthy of note that under Atlantic City (1947) Table of Frequency Allocations, the band 3.5 to 3.9 Mc. is assigned for Amateur, Fixed and Mobile Services. The Department has restricted the Fixed and Mobile Services to the 3.8 to 3.9 Mc. portion, leaving the 3.5 to 3.8 Mc. frequencies to the Amateur Services.

The 3.505 Mc Glider Aircraft Frequency is the only exception to this, and the Department states that there is no intention, at this stage, of making further allocations for use by Fixed and Mobile Stations in the 3.5 to 3.8 Mc. portion of the band.

LISTENERS' GROUPS

With the lowering of age to 16 years for A.O.C.P., and the introduction of the "Limited" A.O.C.P., a new section of enthusiasts has been given the opportunity to enter our ranks. However, it must not be forgotten that there is a large group of people, both young and old, who, though not interested in the transmitting side of radio, are keen and critical listeners.

These people, for the most part, have been unable to join in our activities in as full a measure as they might desire. It is with this in mind, that the Federal Executive has suggested that Divisions might find it expedient to form a "Listeners' Section," with particular facilities of its own.

A strong group of this nature could be of inestimable value in many ways to members of the Institute and could provide a recruiting ground for future transmitting members.

REPRINT OF HANDBOOK

It is confirmed that the Amateur Administration is arranging for a reprint of The Handbook for Operators of Amateur Wireless Stations. This will incorporate amendments already promulgated and those concerning the "Limited" A.O.C.P.

This booklet is recommended for study by candidates for examinations and the reprint will be at the earliest practicable date.

ADDRESS OF NEW FEDERAL SECRETARY

The private address of the new Federal Secretary, Doug. Bowie, VK3DU, is 22 Norfolk Road, Surrey Hills, E.10, and the phone number WF 3504.

AMENDMENT TO FEDERAL CONSTITUTION

Under the direction of the Federal Council of the Wireless Institute of Australia, Federal Executive hereby gives notice that it is intended to alter the Federal Constitution (1947) of the W.I.A. as follows

Section 20. By deleting after the word "and" in the second (2nd) line, the words "two other members," and inserting in lieu thereof the words "four other members."

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FEDERAL QSL BUREAU

RAY JONES, VK3RJ, MANAGER

Bill Storer, VK1EG, has at last been heard and worked by VK stations on both 7 and 14 Mc. c.w.

ZD7B, St. Helena, was heard on 14 Mc c.w. early in July. He is ZS6CW and will be on the island for some time.

All DX fans hope that long before this note appears in print, Alf VK3KB will be in better health and again active.

CP1BX, Ted Westlake, is now TI2BX. Ted visited Melbourne way back in 1947, for a Civil Aviation Conference.

Brian Fiebig, ex-VK1BA, has at last sent out some confirmations for work at Macquarie Island. Brian, who is presently at the P.O. Manjimup, W.A., may soon transfer to Dromana, Vic., having received a nomination for promotion to the latter office.

ZL1AJU visited VK9OK, Norfolk Island, a few months back and has arranged the printing of cards for VK9OK.

SILENT KEY

It is with deep regret that we record the passing of:—

VK5AW—Hal Austin, July, 1954.

Steve Barnes, KG6AEX, ex-KP6AA, well known to most VK stations, is leaving Guam after five years service in that location. He has been transferred to Anchorage, Alaska, and hopes to be active from KL7 by end of 1954. He sends his 73 to VK friends.

ZC5VR, Vic Randall, who is a native of VK3, lived in Rabaul from 1928 to 1938. His QSL is a nice effort.

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NEW SOUTH WALES

The June meeting of the N.S.W. Division was held at Science House, Gloucester St., Sydney, on 28th June. A large and attentive audience of members attended the meeting which was presided over by the President, J. Corbin, 2YC.

After the preliminaries had been dispensed with, the meeting was handed over to the lecturer of the evening, Mr. McCullogh, of Standard Telephones and Cables Ltd., who, in a most accomplished manner, delivered a very absorbing lecture on Television, his impressions gained from a recent trip to the United Kingdom and America. The lecture was illustrated by slides and dealt with the varying systems in use in both countries, the advisability of using a.m. or f.m. and a discussion of the standards both in use and desirable from the Australian outlook. Mr McCullogh raised a few eyebrows in the course of his discussion when he dealt with the difficulties of the t.v. serviceman and the large amount of equipment needed to carry out the oftimes necessary adjustments, and no doubt many who were listening (including your scribe) went home with very definite views on the matter, if not with a feeling of trepidation. The needs of the future were considered, both from the Australian point of view and also from the European angle, the question of the effects of interference, not from Amateur Radio alone, but from Commercial and domestic appliances also, and the initial costs involved.

As can be imagined, question time was eagerly looked forward to by many, questions being fired at the lecturer some considerable time after he had concluded. All agreed that it had been a most informative night, and Mr. McCullogh is to be congratulated on his fine effort.

The recent Sunday morning broadcasts have not been very successful of late on 7 Mc band, and it has again been found that at this time of the year that the broadcast has better coverage on 3.5 Mc. This has for the main part been carried by Alan 2ACC, using a 144 Mc link from various stations, and it has long been felt that there is a need for a complete station for operation on 144 Mc., so that it can be taken to appropriate points to enable that link to operate consistently to the convenience of the several operators who have at personal inconvenience carried this out. Council discussed the matter of building such a station and it was put to the meeting that this be done. The V.h.f. Section have offered to design and construct the station and after discussion, the meeting decided to go ahead with the project and thus enable the Divisional broadcast to be heard in the near future throughout the State.

The meeting closed at 10.40 p.m. to be carried on by the hardy souls who invariably discuss the usual topics in the cold of Gloucester St.

HUNTER BRANCH

The June meeting of the Hunter Branch was held at the Tighes Hill Technical College on 11th June, 20 members being present and the meeting was presided over by Lionel 2CS. After the minutes and general business were disposed of, a film was shown entitled "The Story of a Storm." Following this, Jim 2ZC produced a portable rx and the meeting heard a broadcast from a local b.c. station on Amateur activity. A further film was shown on Battery Ignition and Electrical Systems which was well received. Lionel 2CE gave the final lecture for the evening on "What you should know about your Antenna," a lecture which was both interesting and educational.

A weekly hook-up has been in operation for some time on Monday night at 7.30 p.m. on 7140 Kc. and all Hunter Branch stations are invited to join the hook-up and have a ragchew with the rest of the boys.

Bill 2AMM appeared on the air again during the last month after an absence of 2½ years, uses a Type 3 Mark II. tx. George 2AGD has gone back to "audio" again until 10 mx comes good again. Frank 2AUH is now operating 80, 40 and 20 mx, but still has a busy time chasing the bugs out of his tx. Les 2AOR is busily engaged converting an AT5 and hopes to have it on the air soon. Chas 2ARV has a tape recorder and intends to get the playback permit soon. Fred 2AGY active on 144 Mc nightly, working 2HE in Sydney uses a 5 over 5 beam to put the herbs over. Taree Bill 2AEY called recently on Ron 2ASJ and was returning to Taree with Associate Syd Daniels who is holidaying up there. Ron has had more sickness of late, so his voice is not yet up to standard; his mother has returned from hospital and is making a fine recovery. Tom Steele, from Belmont, has now got himself a rx for his s.w. listening.

The next meeting of the Hunter Branch will be held at the Tighes Hill Technical College at 8 p.m. on 13/7/54, an interesting lecture and films have been arranged. All are welcome.

NORTH WESTERN ZONE

Little news from the zone this month, but it appears that Tom 2AMR has been quite busy finishing the construction of a trailer and has spent only a few hours on the air, this being on 15 mx. Noel 2APE has been brushing the cobwebs off some Marconi gear and after getting 10 Ma. in the final found it does not work. Bob 2AXS can always be relied on to help or stand by for a test, consistently heard on 7 Mc. Sunday mornings. Bill 2ACT appears to find flying gliders as interesting as keeping bees or Amateur Radio. From 2AQM the news that distance and time involved in travelling have caused the membership of the Postal Radio Club to dwindle, the equipment has been dismantled temporarily. 2AQD has had rx trouble and found that 6v tubes are not happy with 12v. supply, operates on 7 Mc., favorite likes are the key and DX.

SOUTH WESTERN ZONE

The 8th June proved to be a red letter day for the South Western Zone as no fewer than eight stations joined in the zone hook-up and ragchew, these being 2PL, 2RS, 2PN, 2BQ, 2APZ, 2EU and 2AJO. Fine work chaps, and hope to see you all again on other nights. Don 2RS reports that Bert 2AEM, at Albury, has moved to a new QTH and is in the process of re-building his gear; hope to hear you soon Bert. Lyn 2AQE, at Coolamon, has a unique way of getting down to earth that jammed-in-the-pulley and also the top-off-the-pole.

Sunday, 13th June, a meeting was held at Tumut to arrange the second South Western Zone Convention. Stewart 2PL, Eric 2DY (visiting Coolamon from Woolongong), Ted Druitt and Jim 2AJO together made the trip to Tumut joining up at Wagga with Don 2RS and Stan 2EL. All arrived safely at the destina-

MY XYL SAYS!

WHY is it that a lot of Hams get so annoyed when the other fellow is lucky enough to snare, from under their noses, that elusive DX station.

My XYL says that if these same chaps were all fishing off the local jetty and one of their number caught a big fish, there would be no grumblings or mumblings, but only an enthusiastic congratulation from all present.

Of course my XYL is ignorant of the finer points of Amateur Radio and can be forgiven, if not silenced!

—OIGLE.

tion, much to our surprise, and after a good meal all of the party called on Ross 2FN where the meeting was held. Those present were, in addition to the travellers mentioned, 2BQ, 2FN, 2GT and Keith Dodd. The tentative date arranged for the Convention is 2nd and 3rd October (Six-Hour Week-end), subject to approval and a very good programme of events was arranged. Programmes should be available later and it is hoped that a good roll up will be there from near and far. At the conclusion of the meeting, a very nice afternoon tea was served by Mrs. Weedon which was much appreciated by the gang. The evening was spent at Geoff's 2BQ where an enjoyable time was spent, the 807s and the toast f.b. Geoff. Geoff and Ross have some very nice gear at Tumut and a 144 Mc. tx built by Keith Dodd would do anyone's eyes good.

The zone officer of the South Coast Zone spent his holidays at Coolamon with 2AJO, when a multitude of items were discussed, many alterations tried, with the result that your scribe was hard put to keep a signal on the air, however many improvements were effected thanks to 2DY. That's all chaps, see you on the zone hook-up.

NORTH COAST AND TABLELANDS

Conditions poor again up this part of N.S.W., have to use the 80 mx band for the Sunday broadcast. Noel 2AHH had recent trip to the big smoke in the new car and after a trouble-free ride down, a car hit him outside 2ACD's place early in the a.m., no trouble on the return trip. 2PA, 2XO and 2AQI, of Armidale, have made contact on 6 mx, 2PA also busy on the coast in the R.A.A.F Reserve. Len 2LR has been busy painting the house, and the Urunga residents now have included Norm Moody and Ted 2AVG. 2WQ and 2NY are busy getting gear together for 14 Mc. and Terry 2AJS has been busy while batching, his XYL being on holidays in VK4.

In a note from 2AJS (what about you other chaps up the Coast dropping a line occasionally) we learn that in the recent flood emergency, Geoff 2SR had the unique experience of being directly responsible for a number of South Grafton residents being kept informed of developments during critical periods. At the time the 240v supply had been cut and a crystal set he had built up for a school boy acquaintance residing on the south side of the Clarence River did the job of getting flood reports from 2GF Grafton. Also regarding 2SR, junior op. of 4 months standing, marked F on the census form, causing considerable QRM in 2SR household, especially during the darkest hours. 2TB also getting in the 144 Mc. net, 2NY has SCR522 and super regen. rx, other stations use the old mod osc. No outside contacts have been made from Grafton as yet. 2AJS has been occupied getting a double conversion rx going and has improved matters a lot, but is still making improvements to the rx. 2OE assisting getting Terry's mast down for painting, marvellous how a block and tackle will help.

WESTERN SUBURBS

Barry 2AAB not heard of late, must be quite busy on the shift work. Ken 2AXZ is not heard much either, possibly is sharing a new hobby of four wheeled vehicles with Don 2ASW who is quite busy with the class and the latest craze, apart from Council affairs. Jack 2APT puts out a nice drop of r.f. from the new beam 45 ft. up in the breeze, the DX comes back just like the doctor ordered. Ted 2ACD busy with the Publicity, waits for letters from the country, sometimes in vain, but apart from that is occupied with (a) beam, (b) cranky v.f.o. Almost nightly contact with 2AKV on 20 though, signal never varies over 50 mile path. 2AEK still getting around, now has new modulator. 2VY still doing a bit on 20, mostly on 7w. just for fun. 2AGX, another of the gang, has improved things of later and since he has recently saved a nice pole from the wood heap, will have a beam in the future. 2ID heard now and then complete with tape recorder, same applies to 2VG. Harry 2YI now has the beam up in the air a few feet, performance is good and when the band opens, Harry will be on more than at present. 2OQ doing fine again as is 2FM with the AR88. All the Western suburbs boys join in wishing Horrie 2FA a speedy recovery from his serious operation and latter illness and hope to hear the old familiar croak on the band again soon. Chas 2AWQ still heard a little on 7 Mc., Sunday especially in between Council affairs. Harold 2AAH busy with the usual studies, but hits out on the vertical now and then.

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VICTORIA

The July meeting of the premier Division in VK was one out of the box. Extra chairs had to be found and even then many stood round the walls or sat on tables. I counted over 180 present and possibly missed a few. Quite a few XYLs and harmonics were present. No time was lost in handing the meeting over to Ken Dalziel who told of his experiences in the far south. During his discourse, he produced specimens of rocks, birds' eggs and photographs he has as souvenirs of his journeys. Ken's talk was followed by forty minutes of coloured film of Heard and Macquarie Islands. As far as I'm concerned, I'll stay in VK3. Winds of 100 m.p.h. and temperatures of 15 below are not my idea of a picnic, burrrr!!!!!

Among the visitors were 2AYE and 3SS, both of whom were welcomed in the normal warm manner. The membership received quite a boost. Messrs. Francis, Green, Morris, McCullogh, Persash were admitted as Associates, and Messrs. Alabiaster, McNally, Blake and McDonald as full members. Hearty welcome fellows and the usual advice.

Gadsden Award.—Tom Hogan, 3HX, is the recipient of the Gadsden Award this year. Phyl (Mrs. 3LN) wishes Jennie (Mrs. 3HX) much pleasure keeping it polished.

Len is hiding the tx for the next hunt and after all the comments passed and the conspiracies afoot to trick him into divulging the whereabouts, I haven't the heart to have a shot at him this month.

A Listeners' Award has been arranged. The award is available to any s.w.l. producing 100 confirmations of stations logged. One application has already been received.

The August meeting is a "Grouch Night," so if you have any pet wings bring it along for an airing. My pet wings is the lack of young fellows coming into the ranks.

Is there something radically wrong with this Amateur Radio? The average age of those in the game must be forty or there-abouts. Can anybody suggest ways and means of recruiting the younger generation into the ranks, or for that matter suggest why they are not coming of their own accord? Will the lowering of the age limit for A.O.C.P. holders help? Will the limited certificate help? As yet 'tis too early to say, but personally I very much doubt that either move will help, unless steps are taken to publicize the hobby amongst the teenage groups. How many people have asked you what has happened to the Amateurs since pre-war days when they provided the Sunday morning entertainment? The great G.P. does not even know we exist in this modern age.

By now, no doubt, you are wondering where this is leading. Briefly, it is designed to set you thinking. By next month it is hoped that the theme can be elaborated on and concrete evidence produced that youngsters are interested if you will but give them encouragement and assistance.

That's enough sermonizing on the younger generation for the moment. Now to slap Grandpappy down. I've often wondered how long before our friend(?) in the City of Snakes—sorry there I go again—City of Shakes would notice page one, and cast doubts on my integrity. The fact that his libelous remarks made print should be sufficient to relieve his fears that any bias is felt towards him. May he be troubled with Adders in his attic.

If any injustice is planned, I rather fancy that "Paddler"—that boa in my bathroom—is the culprit. Unless my feeble old eyes deceive me, he is now on the Federal Contest Committee. Take warning, Sir!! If VK3 does not get the R.D. Trophy this year, VK5 notes will be cut in half. If the 3RN/3AFJ combine does not romp home in the next field day there will not be need for you to write any notes at all. Definitely zero bias.

Now to deal another blow to the ego of that python in my pantry. During the war years we dumped rubbish at a little place called Dry Creek. Now what happens, I ask you, what happens? Great snakes! The so-called Best Broad . . . etc., etc., is shifting their tx there. Am I to infer, Sir (mere courtesy), that the Best etc., etc., has been relegated to the rubbish heap. Lo! how the mighty have fallen. Anybody wanting to know why all the references to snakes is hereby referred to SPS.

Gather round playmates and take warning. Don't breathe a word about State Conventions. Some misguided soul suggested going to Ballarat and what happens. Before I could decide yea or nay, the XYL goes out and buys two frocks and a coat for the occasion. This Ham Radio is getting far too expensive. Still, expect I'll rake up enough cash to see you at Ballarat at the end of November.

The R.D. Contest is now rapidly approaching. It is hoped all VK3 members will participate and pile up big scores. Make those fellows in VK5 work. Don't forget the dates—Saturday 14th and Sunday 15 of August. The rules are on page 15 of the July issue.

There is very little in the way of news this month. Too cold to spend much time in the shack, but did hear that 3WL is flitting back and forth to VK2. 3DU won't have much time on the air from now on. 3ZS another who has gone hi-fi happy. 3UF heard operating portable. Wondered where you had gone to John. JWM heard on 40. Not complaining Ken, but thought you'd like to know. By the way, can you tell me what has happened to your cobber, Associate member, John Carrucan? Haven't seen or heard of him for months. 3MZ busy painting, that is, when he's not falling off the ladder. 3APD and 3SK both playing round with screen modulation. 3TX in sunny VK4. 3AEW back on after a long absence. 3EW trying to push some r.f. over Ashburton way with mixed results. Why are the northern suburb signals so poor over this side of town?

SOUTH WESTERN ZONE

Doings in this zone are on 3.5 and 144 Mc. bands. Everybody is talking beams for 2 mx on the 3.5 Mc. band. If you do not talk v.h.f. they leave you out in the cold. 3HG now has his 70 ft. tower in the air with a five over five on top with a converter on the other end. Neil has been hearing 3YS relaying to 3WI on Sunday mornings. 3EQ has his converter going now, the osc. of 3ANQ's converter going well and the rest nearly finished. 3ARJ having plenty of fun with 5 watts; heard talking vee beams. The boys at Hamilton have gone underground for the winter, nothing heard from them for some time. What about it 3HY, 3TW, 3TN and 3DD.

The lads from Ballarat are suffering from the same complaint, heard nothing since Easter. Another loss to the zone—Bert 3BI is now 7BI at Derby. 3ZL and 3BQ heard on 2 mx during the month, but both rather weak here. 3AGV given away gold digging and converting 2AGE and 3KX to 144 Mc. with some success.

The State Convention is on at Ballarat on 27th and 28th November, 1954. Agenda items are wanted for same, so here's your chance to get that pet winge off your chest, not when the show's over and you are packing up to go home.

NORTH EASTERN ZONE

An interesting note in the last call sign list is VK3AIL, issued to our Associate Lex, in Benalla. Hope we can have the pleasure of working you on the air soon OM. Frank 3ZU has been promoted to Yarrawonga from Euroa. Doug 3LJ had just finished painting the timber for his new masts at the time of the June hook-up, and Hugh 3AHF made some repairs to his tx to be on it. It was a pleasure to work Jack 3AKC on his first North Eastern Zone hook-up last month, but not so pleasing to learn that Howard 3YV was having a recurrence of his trouble, hope it clears soon OM. Henry 3HP nearly had a C.D.E.N job a while back, however it all ended satisfactorily; Des 3BP has been quiet lately, although Gordon 3XU has been heard on 40 mx, and Jim 3JK reported having his 6 and 2 mx beams ready for erection earlier in June.

Syd 3CI has been beating up 2 mx again, hearing the VK5s at Mt. Lofty about 20th June. There are several notes of hearing Ken 3KR, but nothing of Vic 3ABX, although Rex 3UR has been reported touring back and forth from his home in Benalla to the new position in Bendigo. Col 3WQ has been successfully keeping up his skeds for the zone, and Stan 3AGT is returning to radio, having nearly finished home building. Murray 3HZ and his staff were very busy about 27th June, and it is known that some people are very grateful and very pleased, as a result. Nothing further has been heard of Alex 3AT and the colour photography, neither have Les 3ALE or Johnny 3ACK been about. It is assumed Peter 3APF has been keeping up with Alan 3UI on the v.h.f., and apparently Keith 3JC is working on 20 mx. The hoped for appearance of Tom 3TS and the news of George 3GD has not yet materialised.

The frost or work kept the pleasant company of Des 3CO off the last hook-up, and it is hoped that we did not miss Jack 3PF if he called us. Associate Vern was to sit for the last A.O.C.P. exams., hope you had a good run OM and that will encourage Associate Clarry to try his hand. A good opportunity of hearing of Associate Jim Harrington was missed recently. That article in July "A.R." on low-powered tx by Hans 3AHH should interest Ron 3AQG, it was recommended for batteries, merely by using 6v filament valves in place of the ones used for AC/DC, and a vibrator or other suitable supply to provide the h.t.

CENTRAL WESTERN ZONE

Our weekly zone hook-up attendances are steadily increasing now, eight or nine stations being a regular occurrence. We welcome back our old timers, Bob 3ARM and Jim 3DP, who after a long absence now have their rigs working very f.b. Charlie VK1AC is now a regular station on the Wednesday night hook-up and of late has had a consistent S9 signal on 80 mx. Trev 3ATR's usually S9 signal was down as a result of a visit from Ray 3ATN. Apparently

Ray made a few alterations to Trev's 80 mx antenna, because since Ray's visit the feeders exhibit more standing waves than one would see on a U.S. Naval parade ground.

Byron's new three element on 20 mx is now all ready and adjusted for erection, above this beam will go a low angle beam for 2 mx which, when coupled to his new 100w. rig, should work out f.b. Herb 3NN, Yanac, is now on 2 mx and is using a 4 x 4. Merv 3AFO, Horsham, has worked Ray 3ATN two-way at Birchip on 2 mx and Dick 3RR is consistently hearing Melbourne stations on 2 mx, they are fairly weak but nevertheless identifiable. He informed me the other night he was using 40 tubes in his 2 mx rx at the time, including converter, etc., so that should dig the weakest of signals out

Well the year is wearing on and time is rapidly approaching for us to select a time and place for the next Zone Convention. Usually this is held during the latter half of September, so any views and ideas for a bigger and better convention than ever will be greatly appreciated.

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QUEENSLAND

WANTED: An enthusiastic Amateur in the Queensland Division to take on the responsibility of Station Manager of VK4WI.

Duties are to receive, gather and correlate news of popular interest, items, talks and technical matter dealing with Amateur Radio and Amateurs generally in this Division. To outline the policy and activity of this Division to be presented for broadcasting over VK4WI each and every Sunday.

Qualifications needed are, to have the welfare of this Division, the W.I.A., and Amateur Radio at heart, to be willing to give up a small portion of time each week in the production of the above mentioned articles. With energy and initiative to see these articles are on hand for the Sunday broadcast. This does not necessarily mean the successful applicant will have to house or maintain VK4WI or read the items, as Jack 4FP has promised to do both providing he gets the necessary help from members

Remuneration is the satisfaction of having done something for the Division and the W.I.A. and kept his fellow Amateurs in touch with Divisional activity.

The reason for the above appeal is that too many Sundays have been missed over the past few months, with no broadcast. This being a vital part of our activity and of too great an importance to just let go "willy nilly" as it has, owing to no one being willing to accept the position. So what say chaps, surely we have one in our ranks who would be happy to do the Institute a service in this capacity. Don't leave it to the only too few willing members, as in the past.

Seems as if, while we here in Brisbane are stagnating, the country boys are really getting down to it, as right on top of the news of the Rocky boys forming a club of their own, comes news of a group being formed in Townsville with Harold 4HM, our President at the inaugural meeting. News has it that the boys at Toowoomba are to form a group under the sponsorship of 4GG, called the Downs group. So it seems as if the country members are at least interested in the Division, and a little unity within our ranks, while we here in the city are laying down on the job.

To those interested enough to attend the general meetings, the lectures listed for the next few months are model planes and their remote control, a further lecture on D.M.E., the arts and hazards of deep sea fishing, and impedance matching antennae, Smith charts, slotted lines and what have you. All these lectures are by people who are well versed in the subject of their lectures, and if it's only to hear the elucidation of these subjects, it would make your presence at our general meetings worthwhile to yourself.

Our June meeting started with some topical films, presented by Ernie 4GE, which I'm not going to comment on. It was your misfortune if you missed them and judging by the loudness of the applause of appreciation for Ernie's effort everyone really enjoyed the show. "Nuff sed!!"

Did notice Ron 4RL among those present, long time no see Ron, hope the housing problem is settled and we will see and hear more of you in the future.

The Field Day held on the Queen's Birthday week-end was to all intents and purposes a flop with only a couple of tx's and not many more Hams in support. Seems as if we will have to go further afield and get the support of the country Hams in future activities of this kind. We would certainly like to hear if this would suit them, they could do the organising their end, while we here try to rouse up enough enthusiasm to meet you on your own ground. With a few more groups, these field days could be run in various districts throughout the year which, not only would give us a day's outing, but would give us a chance of meeting more of you and knitting the country and city members more closely together in our organisation.

Jim 4PR has built the crystal osc. for 4WI with Jim 4OB doing the installation. John 4FP has promised the use of his car himself as chauffeur, this should put 4WI on the exact frequency while at the same time allowing us to give spot frequency broadcasts.

By what I've heard, 144 Mc. is getting a bit of prodding these days. Is this in preparation to give the holders of technicians' licenses one big welcome to the ranks of Amateur Radio? Did hear of one Ham giving the local air control a call, thinking it was another Ham station.

Heard 4NR, who is a newcomer to this State, and 4ZM nattering on the respective merits of an 807 and how they use and abuse them in this and other States. Very enlightening what the poor old "toobe" has to suffer in the hands of the Ham

Looks as if the Intrastate shield stays in the country as on the last count of logs in this contest, 4PQ has topped the score again with 4FT a close second, both putting up a very nice score. The best to date since this contest started a couple of years ago. Though a few more logs from the participants would be appreciated if only for check purposes. Maybe next year there will be more activity in it and give these two a run for their money

From the Gympie area we hear that 4LN has his 14 Mc. beam down and QRL as he is shifting QTH, so means a new pole. 4CR is getting independent as he has one new halyard of copper wire. Only one more halyard to go. No more rope for Col He is on 7 Mc at times. Nothing heard of "Chips" 4XR lately, maybe a xtal converter for 21 Mc may come from the silence. 4HZ is gathering pieces—believe this means a grid dipper—we hope! Jim has had the tube for some time.

August is here again, so what about getting behind your State in the R.D. Contest as we can get that trophy with a little concerted activity on your part even if it means the minimum of contacts and your log sheet in on time. The contest committee is relying on your efforts to pull it off this year. After all, we can always score more than the VK6 boys.

Well that's all for now, and a thought for the month. It is ridiculous for any man to criticise on the work of others, who has not distinguished himself by his own performances.

SOUTH AUSTRALIA

The monthly general meeting of the VK5 Division was held in the clubrooms to a little below normal gathering of members, the number of members present was a little below normal, not the actual members themselves! The guest speaker was Mr. Keith Brearley, who used as his subject, "Continental Tour." The tour included Belgium, England, Scotland, Spain, Germany, Italy, Switzerland and Holland, and was extremely well illustrated with some excellent 35 mm. colour slides. He also gave an interesting description of life and conditions in the various cities visited, and the enthusiasm that greeted the vote of thanks ably proposed by Douglas 5BY was a definite indication of the members' enjoyment of the talk. Among the visitors were Messrs. Daley, Geraghty, Bedford and Judd; to these gentlemen we say come again and we hope that you enjoyed yourselves as much as we did. The Chairman, Gordon 5XU, presented Joe 5JO with his certificate for being the highest scorer for VK5 in the National Field Day, and also read to the members present the suggested alterations to the Remembrance Day awards. Members were asked to give some idea of how many would be likely to purchase the N.Z.A.R.T. call book (25 members signifying their intention) and the meeting concluded at 10.10 p.m.

Mentioning visitors in the previous paragraph reminds me that some members appear to have a somewhat elastic impression of the meaning of visitors. Visitors to our monthly meetings are more than welcome because the visitor of this month will possibly be the member of next month and that is all to the good of the VK5 Division. However, when a visitor keeps bobbing up at meeting after meeting and tries to dodge the visitors' book, then he is no longer a visitor, but becomes what they used to call me each time I joined a new Sunday School just before the annual picnic, to wit, a "cake-smeller." Joe 5JO is the membership organiser and is stationed at the main entrance at the direction of Council, with the idea of sorting out the visitors from the "cake-smellers" and tactfully pointing out to them the privileges that may be theirs by joining the W.I.A. The next time that you hear Joe going to work on a "cake-smeller" you can take it for granted that he is not acting on his own say-so, but is actually looking after your interests and mine.

I have it on good authority that Doc 5MD has been missing on one or two of his schedules lately and believe that the reason lies in the new snooper-de-loox automobobbie that graces his garage these days. You know how it is fellows, rub, rub, rub, polish, polish, sore wrist, sore wrist, sore wrist, glass arm, glass arm, glass arm, no c.w., no c.w., no c.w.

I received a letter with an enclosed A.R.R.L. booklet on operating an Amateur Station from someone who knows me well enough to call me "Pansy." The several paragraphs on correct operating and procedure were underlined in ink, and the letter suggested that I forward the comments to "A.R." for publication in the hope that it might assist in clearing up some of the rotten operating that at times appear on our bands. I am in agreement with the sentiments expressed, but probably would have been more enthusiastic if the sender had had the courage of his convictions and signed his name. Incidentally, my enthusiasm cooled very rapidly when I had to pay the postman a surcharge of fivepence for insufficient postage on the letter! Seriously though, the writer had a lot of right on his side. We have a set of standard operating rules to abide by, and it is just as easy to do the right thing as to do the wrong. Certainly the best, and the worst of us, make a slip at times, but each State has its one or two who seem to delight in working off-standard and boasting about it. The late Ross Harris, 5FL, was a stickler for operating procedure and gave several lectures on the subject at general meetings. Couldn't someone step into his shoes, I feel sure that a lot of poor operating only springs from ignorance of the procedure.

SOUTH EAST AREAS

5TW has had a few contacts on 40 mx and has kept his schedules on the v.h.f's. (boohl), but Tom finds the shack a little too cool these nights for any long sessions at the rx. 5CH has returned from his holidays at VK2 and is carrying on with the shack building. How come that we did not see you this time Claude, couldn't you face my XYL's cooking? 5MS has spent some time in remodelling his beam and has worked a few stations on 20, 40 and 80 mx, but also agrees that the cold nights restrain his activities. Jim VS1ES was telling me Stuart that your signal is one of the best known VK sigs in Singapore. 5KU now comes under the heading of a de luxe station with heating installed in his shack. Erg naturally is spending more time in his new shack, but as no details are to hand as to his contacts, one can only assume that he uses it to keep warm!

OBITUARY

HAL AUSTIN (VK5AW,-4BN)

Hal is known throughout VK as the operator of VK5WI and was, at the time of his passing, an active Council member of the VK5 Division as well as a Past President of the Division. His activities in Amateur Radio date back to its commencement in VK5 and he can rightly be called a pioneer of broadcasting in this State. He is one of the few "oldtimers" who never gave the game away, and at the time of his death was as active in the game as he was in his teens. Ever ready with advice and practical help to the beginner in radio, he was probably one of the most widely known of the VK5 Hams, and was respected in the Amateur and Commercial world for his undoubted practical knowledge in the field of electronics and associated techniques. VK5 has lost a stalwart, VK5 is the poorer for his passing, but VK5 will never forget him, because he lived and died, a true Ham.

To his wife, son and daughter, we extend our sincere sympathy and assure them that we share their sad loss.

FRANK MILLER (VK5BF)

On 24th April, after about 15 months of ill-health, we lost one of our old-timers in the passing of Frank Miller, at the age of 58 years. Frank was a signaller in the 1st A.I.F. and was an Amateur in the days before licensing. In the late 1920s he used to transmit programmes on the broadcast band from his home in Murray Bridge.

Eventually he constructed the commercial station 5MU and about 1935 sold the station, but stayed on as Manager until the time of his failing health in 1953.

On the Ham Radio side, he ran separate transmitters on each band and was particularly active on 10 metres, where he made countless friendships, especially with the Ws. Frank's signals were always outstanding, but not only that, his equipment in its appearance resembled commercially built apparatus both inside and out. This was due to the fact that he was of the rare type that could make an exceedingly good job of anything he desired to do from radio to fitting and turning.

Of particular interest, it is not generally known that he is credited with the development of the teleprinter. He worked on the design of this whilst in the trenches in France in the 1st World War and was credited with its invention by the Royal Signal Corps. Acknowledgment of this achievement was sent to his parents by cable from London.

We have lost not only a keen and unassuming Amateur, but a man with a high degree of inventive genius and we extend our sympathies to his widow.

5FD, believe it or not, really did get on 40 mx recently, but wasn't on very long before his relay tranny gave up the ghost and John rode away mounted on his dudgeon. 5JA has nothing to report and all I have to say about John is to be found in the last six issues of this magazine. 5CJ has managed to keep his schedules on 2 mx (a couple of booh's), but Colin has at least the grace to say that conditions have prevented him from operating on any other bands. He tells me that he understands that several of the Associates in the S.E. areas are making enquiries regarding the limited license and this is good news if correct, because it will mean "new blood." Hear, hear, say we all.

Was very sorry today (2/7/54) to read in the local paper that a man, thought to be Mr. Frank Bentley (5MZ) had been taken to the Royal Adelaide Hospital after having been knocked down by a motor car near his home. He was admitted to the hospital suffering from a possible fractured skull and a fractured upper and lower leg. At the moment of writing, I have nothing official on the matter, but feel that it is without doubt, Frank Bentley, and we all hope that the injuries are not as serious as stated in the paper. His many VK3 friends will read this paragraph with misgivings and I suggest that they seek any information on his condition from the 40 mx boys in VK5.

Heard a whisper this week that some of the regulars at the monthly general meetings feel that the travel talks are being a little bit overdone and feel that there should be more technical talks in their place. Well, this is all to the good, that's what Council and the programme organiser want the members to do, in fact they want the members to yell out loud if they want any changes in the normal set-up of the meetings. Council and the programme organiser can only try out various ideas to improve the meeting nights, and if nobody puts on a winge, then they think everybody is satisfied. Gordon 5XU has the matter in hand and will set up the technical talks for the remainder of the year. Time and time again I have emphasised that Council are in office to serve the members and their wishes, and at all times seek constructive criticism. To put it bluntly, if you have got something, they want it, if your something turns out to be nothing, then they will tell you what to do with it. That's fair enough, isn't it?

Incidentally, talking about winges, I must be losing my punch because for the past three or four months, not one stiff letter on cardboard have I received from the wise men from the East, no disgruntled member has written to me telling me that my monthly notes are on the bugle, in fact it is so peaceful in VK5 that I am beginning to feel that it is the calm before the storm. At Council meeting the other night, there was a suggestion that we purchase a new typewriter and I immediately girded my loins and prepared for a lusty dogfight. However, nothing of any great interest eventuated, it was decided to seek prices of secondhand typewriters, and what looked like my opportunity to wield a mighty pen only fizzled out in veiled references from some Council members as to the possibility of our purchasing a filing cabinet, with half concealed smirks in my direction! I wish Gordon 5XU were here again, we always found a windmill to have a tilt at.

The VK5 Division is securing quite a good "Press" these days from the local paper on Thursdays, with the "Wireless Institute" column written by that ace journalist—"Guess Who?" (No Pansies as a prize—Ed.) This column is written with the object of drawing the attention of the average reader to the fact that Amateur Radio is not the hobby of a bunch of half-wits, but is a hobby that can be of national importance and capable of attracting the lowest and the highest in the land to its ranks. The fact that the paper, the "Advertiser," is now giving us a headline to the column each week is further proof that we are succeeding in our objective. How did you like the photograph and the write-up in the paper of John 5HI, not bad, eh? I think I will send a copy of the paper over to the magazine to show them just what the premier Division is doing in the way of publicity for the W.I.A. Ho Hum! By the way, magazine must be popular these days, it was a little late this month and I was amazed with the number of VKs who were moaning about the lateness. Speaks for itself, does it not?

An unexpected visitor to the City of Virtue this month was Jim VS1ES, who was on his way to England after duty in Singapore via VK. Jim took the opportunity of meeting as many of the boys in VK that he has worked at various times and whilst in VK5 was the guest at a little get-together of friends that he made whilst on the air at VS1. I met him for a short period and he impressed me with his outlook on Ham Radio. I think he would be a man after my own heart.

UPPER MURRAY AREAS

The monthly meeting for June of the Upper Murray boys was held at the QTH of Hugh 5BC and resulted in a splendid roll-up including 5XO (the bloke with the rope round his ice cream and jelly) and also a visitor to the district in Charlie 5ON who found time to come along and see just what made these country gatherings tick. Actually all hands were present except Hurtle 5RE and the place looked like a buy and sell night but for the fact that none of the varied amount of gear displayed was sold or given away. 5CF brought along some of his gear and there was a session on that; 5BC brought out his 144 Mc. tx, which works in fine style; 5TL brought along a converter and a g.d. osc. on 144 Mc., and 5MA distributed and collected several publications which form, at the moment, the exchange library. Hughie 5BC was instructed to purchase another publication for the library, the cost to be apportioned among the boys. The usual "grasshopper" act was performed by those present upon the goodies provided by Mrs. 5BC, and all present left for home having spent an enjoyable evening.

5XO has been heard on the air by several stations since his change of QTH and 5WO was heard in contact with Alec, although his signals could not be heard. 5MA has at last come on the air again on 3.5 Mc., but the effort was apparently too much because latest advice gives Fred as being confined to his bed with fibrositis or similar. Hope that you are OK by now Fred. 5KW has not been very active this month, but he did climb up the top of his beam tower to watch the fire which was burning some two miles away and gave a running description of the event. Harry said that he was more than satisfied with the view. Frosty mornings this month have not been conductive to early rising, but 5RE, whose information is usually reliable, states that the grass has been white these mornings when he has

been pruning. Naturally the pruning refers to Hurtle's trees and/or vines.

5TL has confined his activities this month to the unmentionable regions and has apparently been talking to Charlie 5ON because he hints that the 288 Mc. title that I hold was organised with Flannagan and Allan or could it be Clapham and Dwyer. He also suggests that Rafferty drew up the rules, and makes several other nasturtiums about me winning the event. Tom also tries to get into the act by telling me that he also became a grandfather as from 1st June. Anyway Tom, I'll bet that your grandson has not got such a handsome grandfather as my grandson!

Most of the Upper Murray boys cut themselves in on the successful 3.5 Mc. cum 144 Mc. shivoo from Mount Lofty to Victoria, which made history in VK5 this month, and as Tom points out, they might be in the country, but they are doing their best to keep their Amateur Radio in the news. No kidding Tom, you fellows up there have the respect of us all down here for the splendid job you are all doing to keep the flag flying for Ham Radio, despite the distances that separate most of you from each other.

Just as I was putting these notes into the envelope, I received a ring on the phone from my XYL to tell me that Hal Austin, 5AW, and better known as 5WI, had passed away suddenly. On occasions like this I am expected to write a suitable paragraph expressing the feelings of VK5 on the deceased and also to give a short resume of his activities in Amateur Radio during his life. To give a short resume on Hal's activities in Amateur Radio is quite impossible because he has been in radio since it was known as radio and has crammed into that time more practical experience than most of us can even dream of. I can remember when I was only just leaving school, and learning the secrets of crystal sets, that I used to listen every Friday night to his transmissions of Gilbert and Sullivan opera from his station at Norwood under the call sign of 5BN, and he was considered at that time to be a veteran of broadcasting, as we knew it then, although he was only in his teens. His activities as an executive member of the VK5 Division are too well known to need enumerating by me, and Hal thought Amateur Radio, breathed Amateur Radio, and took the high principles of Amateur Radio into his business life as well as his domestic life, as can be vouched for by the large number of the boys who were often to be found in his workshop during business hours. I could go on writing in this strain indefinitely, but I am not going to because nothing that I could say can adequately express the feelings of the VK5 boys in their loss of Hal. VK5 has lost a stalwart, VK5 is the poorer for his passing.

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WESTERN AUSTRALIA

The main item on the programme for the June meeting of the Division departed somewhat from the Ham Radio angle, but was, nevertheless, thoroughly enjoyed by those present—especially those who hold oil shares! I'm referring of course to the talk by Mr. G. A. Smith, of W.A. Petroleum Ltd., on "Seismic Surveying." Mr. Smith presented his talk in a very smooth and at times humorous manner. He has travelled to many parts of the world with surveying teams, and really convinced us that there is more to this oil business than waving pieces of paper in the Stock Exchange.

The two supporting lecturettes also went off smoothly. Wally Coxon, 6AG, demonstrated some unusual tools of great practical interest, while George Moss, 6GM, concocted an apparatus to show the effect of varying grid and plate voltages on a demonstration triode valve kindly loaned by the Technical College. This tube is similar to the 211 type, with one side of the anode cut away; the remaining active side coated with fluorescent material which glows in proportion to the plate current flowing.

On with the scandal—6MK as usual putting out a relentless signal from Nedlands. That Collins 32V3 should attract plenty of interest when it arrives Tom. 6RU still involved in a rx re-build; completed the job once, but was not satisfied with the switching, so cut it came and the job recommenced from the ground up. Moral: Beware of so-called high quality ceramic switch wafers. They can be mechanically unsound, so check yours before taking delivery; it may save a lot of time later!

6AP put in an appearance on 7 Mc. the other day. Alf is on the mend now after a few health troubles. Let's hope they are all behind you now OM. Narembeen is now on the radio map with the appearance of 6RT on 80 mx. Also heard on 80 mx was 6VK, of Northam. That band is getting quite a following of "sixes" lately, and the contacts are there to be had, providing the city dwellers brave the b.c.i. 6MO from the Magnetic Observatory at Watheroo was heard working a pair of ZLs so the DX is there if the gear is up to it. During the month VS1AA and VS1FE passed through on their way East via 6DX at Kalgoorlie. I believe at one stage they were looking for 6LL in his old QTH at Claremont, but of course no luck. Better liaison needed next time Clarry!

6KJ, of Albany, still working the Eastern States on 3.5 Mc. with the greatest of ease, and has been doing so ever since he came on the air. 6YZ to be heard on occasions on 7 Mc. with that 3-inch speaker microphone. 6SR, the official station of the Radio Society, now sports v.f.o. control on 40 mx. Also heard with slow morse transmissions on 7011 Kc. at 1000 hours on Sundays. 6LU has been experimenting with the Command tx on c.w. and after a series of chirps and blurps, has it putting out a good clean signal.

A point which is worth remembering with the Command tx is that the 1629 magic eye tube makes an excellent oscillator in an emergency, should the 1626 give up the ghost as happened to 6HK recently. The target connection is used as an h.t. tag point on the 1626 socket so 'tis a good idea to disconnect this, but otherwise the tube can be plugged in without modification and the calibration touched up. 6TK raised the question recently of the use of Esperanto on the Ham bands. I think we just about have a language all of our own already Terry, the way some of the chaps bandy the abbreviations around on phone, but the idea has points in favour. 6NF has been warning the fraternity that if they hear strange noises emanating from Applecross way, it's probably Norm on single sideband. Judging by the ZL and W signals with the system, it may be worthwhile experiment. So tune up those b.f.o's chaps, and put a VR tube in the oscillator! 6GU's new converter has so much lift on 14 Mc. that he runs the r.f. gain backed right off. He must have been thinking of South Americans when that was on the drawing board.

To conclude on an encouraging note. 6GH in commenting on conditions in general and solar activity in particular, mentioned that the official sunspot number for January was nil. Well it can't get any worse than that, unless there is such a thing as negative sunspot activity, so things look hopeful for a gradual rise in the m.u.f's. See you on 28 Mc.!

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TASMANIA

This month I was tempted to hold writing the notes until after the July meeting, but noticing the "Warning to Correspondents" in the last issue, and having a guilty conscience, I thought I had better do the right thing by the Editor and get the notes in on time.

A most successful social evening was held at the club rooms on the evening of 9th June. This was really the unofficial opening of the rooms and the Council was not quite sure how it would work out when viewed in the light of previous attempts to organise mixed social functions. But all fears were put to flight when the time arrived because the roll up of members, XYLs and visitors almost filled the room to capacity. The evening started with a film show which was delayed a little in starting because of a missing take-up spool for the projector. Suggestions to the operator (7AJ) that he let the film run on the floor and sort it out afterwards were not treated seriously and after a lot of frantic rushing about the town, Athol managed to borrow one and the show proceeded without further incident. A ragchew and supper provided by the ladies rounded off a very pleasant evening, even for 7OM who was last seen bending over the washing up basin wearing an apron.

Doug 7DW hit the headlines recently in the local rag—photograph and all—the occasion being the installation of traffic lights at one of Hobart's busiest intersections. You look well up a pole Doug. Incidentally, Doug was that excellent person responsible for the abundance of power points and lights in the 7WI shack.

My apologies for any glaring mistakes in these notes as I am trying out a wide band tuner on Isaac Stern's concert and writing at the same time.

At the last Council meeting, held at the residence of 7AF, Bob complained bitterly about two loose P.M.G. manhole covers on the footpath outside his bedroom window. It seems that at all hours of the night the peace of Battery Point is rudely shattered by latecomers walking on the covers, causing a most unholy clanging. After the meeting, members decided to find out if Bob's complaints were justified, they were, the covers clanged hideously, lights came on, heads popped out of windows and a burly individual appeared full of fight! You were right Bob!

Joe 7BJ has found a new toy, a movie camera! Take my advice Joe, leave it alone, it will break your heart and your pocket, and wait till the kids get their hands on the reels of film. Better stick to radio. Tom 7SW again asking for information about the ex-Army rig he has, more action and less talk Tom, it's about time you put something into that half wave 40 mx antenna you haven't put up yet. Alan 7CJ banished to Kelso, it seems—about time you took the rig up there Alan, or is there too much competition? Associate Jack Stevens contemplating a v.h.f. license, never mind this low frequency stuff on wires Jack, change the frequency. Teddy Evans, when you can fiddle like Isaac I will come to all your concerts (if I get free tickets!).

Boys, the R.D. Contest is with us again—what about it?

NORTH WESTERN ZONE

A combined meeting of the Burnie and Devonport groups was held on 11th June at the home of yours truly (R. Wilson). There was a good attendance and it was decided that the meeting night should continue to be the second Friday of the month. No information was to hand regarding emergency equipment, but it is hoped that a few members may begin some of their own design shortly. At the close of the meeting supper was enjoyed by all.

Preliminary plans are being made by a few local Hams for the forthcoming R.D. Contest in an endeavour to win back the trophy which will be a difficult task this year. On listening round the bands there has been quite a lot of DX breaking through and believe that 7SF and 7WA have been amongst them. Most of the DX being on 15 and 20 mx with a little on 40. Talking about DX, the local Sunday broadcasts has been coming through fairly regularly on 80 mx though very weak and fading at times, but there has been no sign of it on 40 mx. Most of us who listen here either aren't licensed Hams or don't have equipment for 80 mx, which is a pity because 80 mx is one of our best local bands at the moment.

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500 per cent.	1.0/4.5	"	"	"	"

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